

AMERICAN RAILROAD JOURNAL.

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Saturday, April 28, 1849.

Railways in Canada and the Lower Provinces.

We have just been favored with an elaborate and highly interesting Report on THE ST. LAWRENCE AND ATLANTIC RAILROAD, its influence on the trade of the St. Lawrence, laid before the Legislative Assembly of Canada on the 7th instant, and printed by order of the House, by A. C. Morton, Esq., Engineer.

Mr. Morton's labors, as Chief Superintending Engineer of the entire line from Portland to Montreal, are well known to our readers, and his report recommending the gauge of five feet six inches, has been published in full in the Journal.

This Report has been regarded as fully stating all the advantages that can be urged towards establishing the superiority of the medium gauge, and received the highest commendation from the Governor General of Canada.

The St. Lawrence and Atlantic Railway Co., in aid of their application to the Government of Canada for assistance, have invited the labors of Mr. Morton's pen in presenting the claims of the enterprise to the confidence of capitalists, and to the favorable consideration of the Government.

After giving a history of the enterprise, and of its chartered rights—the survey and characteristics of the route—the estimated cost of the road—the report goes into a full examination of the advantages of the road—its connections, and sources of business.

The navigation of the St. Lawrence from tide water to the great Lakes is now perfected by the completion of a magnificent series of ship canals, and vessels carrying three thousand barrels of flour, may receive their cargoes at Chicago, or any of the

western ports, pass expeditiously and safely to tide waters, and thence to the ocean, without breaking bulk.

The principal objection urged against this route as a great thoroughfare, is the difficulties arising from the severity of the climate which renders the season of navigation short and at times unsafe. At certain of these periods, there is little or no competition and freights and insurance are high.

Under these circumstances, all that is necessary to give the St. Lawrence route the superiority in every respect, is a short, cheap and expeditious communication between Montreal and the seaboard.

This, it is maintained, will be accomplished in an eminent degree by the completion of the Portland railway, which, from its favorable position, reaches the Atlantic coast by the shortest feasible route, with gradients and curvature equal or superior to most of the great leading lines which are striving for the western trade.

The first and most important connection of your road, therefore, is with the extended natural and artificial navigation opening to the vast and fertile regions of the west, and securing to it in a great degree the immense trade which will descend through the St. Lawrence to an eastern market.

From the St. Lawrence, your road pursues an easterly course until it reaches the St. Francis Valley, where an important line or branch railway will diverge passing down the valley of the St. Lawrence to Quebec. This will concentrate and draw the trade to your main line, whether it is destined for an eastern or western market, or to or from Quebec.

Thus, your main line, while it accommodates and will secure the local trade of the country, and that between the cities of Montreal and Quebec, will still be the great thoroughfare between both cities and the Atlantic seaboard.

This will inevitably be the result, simply because it is the shortest and cheapest channel through which this trade can flow for a large portion, if not the whole year.

But in addition to these considerations as connected with the trade of the Quebec branch, there is still another advantage which greatly enhances its value.

When the great system of railways for the Province shall have been carried out, this branch and a large portion of your main line will then form part of the grand trunk line from Halifax to Lake Huron.

After attaining this important point of divergence on the St. Francis, your road bears a more southerly course, following the fertile valley of this stream for a distance of 30 miles, when it arrives at the point of divergence of another important and long line of railway communication extending to the cities of New York and Boston, and all the principal manufacturing towns of New England.

The construction of 100 miles on the part of American corporations will complete an uninterrupted line to both of these cities, which probably will be

done as soon as your line is constructed to the boundary.

But without at present further tracing these connections and the benefits flowing therefrom, we return to the main line, which from this point to the boundary is but a continuation of the same general course, followed through the St. Francis Valley.

Arriving at the boundary, your line is taken up by the American corporation and extended to Connecticut river, thence down its valley to the vicinity of Guildhall, Vermont and Lancaster, New Hampshire, when it will connect with the proposed railroad passing down through Meredith and Concord to Boston, and affording another line of communication with central New Hampshire and that city. From the point of divergence near Lancaster, the main line in continuation of your road is extended to tide waters, Portland Harbor, forming in its course several important connections, not only with branches contemplated and in progress, but with main trunk lines extending eastward.

One of these lines may be regarded as an extension of your road through the heart of the State of Maine to the Province of New Brunswick. It diverges from the Atlantic and St. Lawrence railway 27 miles from Portland, and extending through a rich and populous district, reaches Waterville, a flourishing town on the Kennebec river, in a distance of 55 miles.

A portion of this line is already in operation, and the whole road is expected to be completed and opened for business to Waterville next autumn.

From that place to the city of Bangor the road will be constructed by another corporation, and as there is a favorable charter it will no doubt soon be commenced.

Bangor is a flourishing city, situated at the head of ship navigation, on the Penobscot river, which, with its other advantages, renders it an important point on the great Eastern line of railways.

In considering the question of the traffic of your road, we must have reference to not only the number of inhabitants immediately along the line, who make up its way business, but embrace the population of large districts of country, which, owing to their position, will be furnished with their supplies and a choice of markets for their productions, through your road, at less cost than by any other means of communication.

Your road having its terminus at an Atlantic port, and forming one of the great outlets of the western trade, may justly claim a large traffic from breadstuffs to be exported to Europe, South America and the West Indies, and from imports of merchandise, etc., for Canada and the Western States.

The great sources of wealth of the New England States are commerce, manufactures and the fisheries.

The soil is better adapted to grazing and the growing of some of the coarser agricultural products, consequently they do not produce sufficient breadstuffs for their own consumption.

The State of Maine, with which the trade of your road is more intimately connected, possesses unlimited advantages for manufacturing which are now about to be brought into extensive use.

Her large rivers and numerous harbors, give great value to her navigation and fisheries, and facilitate those valuable branches of her trade, lumbering and ship building, in which she exceeds any other State in the Union.

The lumber which she annually produces amounts to 650 millions of feet, and the tonnage of the vessels which she annually puts afloat amounts to 28 per cent. of the whole tonnage of vessels built by all the States in the Union, and exceeds that of N. York by 21,000 tons. In the amount of tonnage of her shipping she is the third State in the Union.

It is ascertained from undoubted authority that the State of Maine now draws annually from the cities of Boston, New York and other places, 500,000 barrels of flour, over 1,000,000 bushels of Indian corn and 75,000 barrels of pork.

The State of Maine is largely engaged in the West India and South America trade, supplying those markets with her lumber, fish, etc.

Western produce arriving at tide water through this channel would give employment to a large amount of shipping, and by adding breadstuffs to her other exports, would render this trade still more valuable, and probably open other and more extensive markets for these products.

It would also enable traders to import West India products on more favorable terms, as the northern and western markets for these articles would be extended by this new channel of trade, and vessels would probably have full freights in both directions.

These products delivered at Portland Harbor, would find their way to the west over your road, and through the St. Lawrence, at probably less expense than by any other communication through New England.

The soil and productions of the Provinces of New Brunswick and Nova Scotia are similar to those of the State of Maine, and they import their supplies of breadstuffs from the United States.

It is stated in the able Report of the Commissioner of the Halifax Railway, that New Brunswick annually pays to the United States upwards of £200,000 for provisions and other articles—that Nova Scotia does very nearly the same thing—that flour is imported from New Orleans—and wheat grown in the Mississippi valley is shipped at St. Louis for New Brunswick, and ground into flour at the mills of St. John.

Looking at the favorable position of your road, connecting the Atlantic with the western waters by the shortest practicable route, and extending down into the heart of the country requiring their breadstuffs, there does not appear to be any doubt that a very large portion of the supplies of the State of Maine, New Brunswick and Nova Scotia, and parts of Vermont and New Hampshire, will be transported over your road, and its branches, by which it will be delivered almost at the doors of the consumers.

The St. Lawrence river, with its ship canals, and the great lakes, open an inland navigation, which, for its extent, capacity and economy of transportation, is not surpassed by any in the world.

The total distance through the St. Lawrence and the lakes to Chicago, from Montreal, is 1330 miles, and in this distance there are but 66 miles of canal navigation.

If we include the navigation of Lake Superior, and Strait St. Mary's which require but about one mile of Canal to perfect the navigation, and which will soon be completed, we have a total extent, including the distance laterally to Chicago, of 1726 miles, having only 67 miles of canal navigation.

The Welland canal is destined for vessels of 400 tons, and the St. Lawrence canals for vessels of much larger tonnage.

These improvements are completed, and were first brought into use last year.

The channel of trade, therefore, is not yet fully known or appreciated, and there has not yet been time to realise the benefits which will result from experience and improvements in the manner of conducting the business of transportation and the effects of competition in lowering rates.

The amount of up trade has an important bearing on the cost of down freight; and this being,

largely increased by the completion of your road will doubtless still further reduce the rates of transportation.

The following table exhibits the leading features of the route from Cleveland to Boston via the Erie canal and Western railroad and the St. Lawrence route, from the same point via the Portland railway to Portland.

ROUTES.	Length of lake and river navigation—miles.		Tonnage of vessels, Tons.		No. of transshipments.		Length of railway, miles.		Maximum grade—ft. per mile.		Time occupied in reaching seaboard—days.	
	Length of canal navigation—miles.											
To Boston, via Erie canal and Western railroad.....	200	363	*80	2	200	83	14					
To Portland, via St. Lawrence river & Portland railway..	534	66	400	1	275	50	8½					
Difference.....	334	297	320	1	75	33	5½					

The following statement exhibits the cost of transporting flour per barrel, on these routes:

ERIE CANAL ROUTE.	
From Cleveland to Buffalo.....	12 cents.
" Buffalo to Albany.....	70 "
" Albany to Boston.....	30 "
Total to Boston.....	112 cents.
If carried thence to Portland.....	10 cents.
Total to Portland.....	122 cents.
ST. LAWRENCE ROUTE.	
From Cleveland to Montreal.....	40 cents.
" Montreal to Portland.....	54 "
Total to Portland.....	85 cents.
If carried thence to Boston.....	10 cents.
Total to Boston.....	95 cents.

From this it appears that adopting the average rates of transportation on the Erie Canal of the lowest month in each year, for a number of years, which is 7 cents per barrel less than the average of 1847, and the lowest summer rates on the Western railroad, the cost of delivering flour at Boston is 112 cts. per barrel, and if forwarded to the State of Maine, an addition of 10 cents, making a total of 122 cents per barrel.

By the St. Lawrence route the cost of delivering a barrel of flour, allowing the charge on the Portland railroad to be 44 cents per barrel, and taking the actual rate at which it has been carried from Cleveland to Montreal (40 cents,) we have a total charge of 85 cents, making a difference in favor of the route via Montreal and Portland road, to the Seaboard, of 27 cents per barrel.

If however, we make the charge on the Portland road, without reference to the difference in grades, the same in proportion to its length, as is charged on the Western railroad, the cost will be reduced to about 41 cents, or a total from Cleveland to Portland of 81 cents per barrel in favor of the St. Lawrence route.

Making Boston the terminus of both routes, there is still a difference of 17 cents per barrel in favor of the St. Lawrence route via Portland to Boston.

The difference in time required to perform a passage from Cleveland to the Seaboard is 5½ days in favor of the St. Lawrence and Portland route.

The greater extent of canal navigation, and an additional transshipment, add not only to the time required, but materially increase the cost of transportation on the Erie Canal route over that of the St. Lawrence.

* Taking one of the heaviest laden boats per day which arrived at West Troy from Black Rock, the average for the year 1848 was 71 1-2 tons. Canal Commissioner's Report, January, 1849.

The former has 363 miles of canal navigation, while the latter has only 66 miles, and most vessels navigating the St. Lawrence pass down the river instead of the canals, so that in the downward passage there are but about 36 miles of canal navigation.

The Erie Canal is navigated by vessels of small tonnage, drawn by horses at the rate of 2½ miles per hour, while the Welland and St. Lawrence Canals are navigated by steam vessels which pass through the lakes and the river to Montreal, without breaking bulk, in half the time, and with about four times the number of tons in each cargo. The vessels on the former route can carry from 700 to 800 barrels of flour, but those of the latter carry 3000 barrels.

These disadvantages of the Erie Canal route cannot be overcome by the enlargement of the canal or other improvements.

The Ogdensburg and Lake Champlain route to Boston may be said to come into competition with your road, and that its tendency will be to divert the western trade from the St. Lawrence above Montreal.

It remains to be considered whether you will be able to compete successfully with this line.

The distance to the Seaboard by this route to Boston and the distance via the St. Lawrence and your road to the Seaboard at Portland, are very nearly the same.

By that route, the transportation will be for the whole distance 397 miles by railways, which are to be operated by six and perhaps seven different corporations, each having a separate organization and management.

The freight is landed on the west side of the city of Boston, much of which must be trucked across the town for shipment or storage at an expense for flour of 4 cents per barrel.

By the Montreal route, the vessels which bring cargoes from the upper lakes will continue down the river, descending the rapids or passing through the canals, at their option at Montreal, a distance of about 120 miles, where cargoes will be transhipped and transported on a superior railway of 275 miles in length, directly to vessels in the harbor of Portland.

As it regards the time of reaching the Seaboard by these routes, there will probably be but a trifling difference. If a bridge is not constructed across the outlet of Lake Champlain, for the Ogdensburg line, there would be another transshipment, or so much delay as to occasion an additional disadvantage.

With reference to the cost of transportation, there appears to be little doubt as to the superior economy of the Montreal route.

Vessels arriving at Ogdensburg with full cargoes, may, in a few hours more, and with but very trifling expense, descend the St. Lawrence to Montreal; and as the facilities for obtaining return cargoes from that place will be far greater than at Ogdensburg, forwarders will probably find it greatly to their advantage for their vessels to go through the former place rather than to discharge at Ogdensburg.

But the amount of up freight will have a tendency, as before stated, to modify the prices of down freight, and the superior advantages of Montreal in this respect will hold out strong inducements to continue down the river to that point, at perhaps less proportional charges than Ogdensburg.

The cost of transporting flour from Montreal on the St. Lawrence and Atlantic railroad to Portland, has been placed at 45 cents per barrel.

If we make the same proportional charges on the Ogdensburg line, the cost of transporting flour from that place to Boston will be 65 cents per barrel.

If it can be done for less than this sum on that line, it certainly can be reduced, at least proportionally on your road, where the facilities and capacity of transportation are greater and the first cost of the road much less. If we assume the low charges on the Western railroad, and apply it irrespective of any supposed advantages of grades and first cost of construction to these lines, the charge on the Ogdensburg line will then be 59 cents per barrel.

Portland line 41 cents per barrel.
Difference 18 cents per barrel in favor of the Portland line.

Mr. Morton then goes into elaborate extracts as to the probable business of the road, and sums up the same as follows:

PROBABLE RECEIPTS OF THE ROAD

400,000 Barrels Flour to the New England States, New Brunswick and Nova Scotia at 1s.....	£20,000
400,000 Barrels Flour for shipment to Europe, West Indies, and South America at 1s.....	20,000
Corn and other descriptions of Grain equal to 100,000 Barrels at 1s.....	5,000
40,000 Barrels Pork, Beef, &c. at 1s. 6d....	3,000
Through and Way Freight of all other descriptions equal to 80,000 tons at 20s.....	80,000
Passengers, Through and Way, equal to 60,000 over the whole road at 15s.....	45,000
Mails.....	2,000
Total Receipts.....	£175,000
Deduct for expenses 50 per cent.....	87,500
Net Revenue.....	\$87,500

which is equal to 10½ per cent on £850,000, or if the final cost of the road should amount to £1,000,000, the net revenue is 8½ per cent on that sum.

This estimate applies only to the Canadian end of the line, or one half the distance from Montreal to Portland.

Mr. Morton furnishes a series of most valuable tables, showing statistics of the cost and traffic of the New York, Massachusetts and English railways. He also presents a mass of facts, showing the connection of this road with the future business of the Atlantic cities and the west.

The whole report embraces some 50 pages, and want of room alone prevents our giving it entire. It is written in a style remarkable for its clearness and brevity, as the quotations from it show. It is by far the most full and satisfactory statement yet published, as to the prospects of the Portland and Montreal railway; and is the best arrangement for the purpose of establishing the necessity of railways in Canada, that could be addressed to the Government.

His concluding remarks, upon the progress of the trade of the west, we give entire.

The astonishing increase of trade on the western lakes within a few years, is such as to render it difficult to assign any proper limits to its future advances.

In 1835 the State of Ohio was the only exporting State on the Lakes, and during that year there arrived at Buffalo 86,000 barrels of flour, and 98,000 bushels of wheat.

The following statement shows the amount of the principal productions of the Western States which arrived at the same port in 1845 and 1847, and the increase.*

Year.	Flour. barrels.	Pork. beef bbls.	Staves. M.	Wheat. bushels.	Rye, oats & corn. bushels.	Butter. kegs.
1847.	1887000	80000	8300000	6489100	3379087	101594
1845.	746750	72060		1170740	78470	19975
Increase	1110250	22940		4718360	3300617	81605

The above is exclusive of the large amount of lake trade which went through the Welland canal.

In 1837, the wheat and flour passing lakes Erie and Ontario to be forwarded to market, through the Erie canal, amounted to only about 35,000 tons—while in 1847 the amount was 496,000.

By referring to the amount of shipping on the lakes at various periods, its tonnage and value, and the value of the commerce, we may perhaps form a more just appreciation of its importance, and the astonishing increase of trade within a few years.

In 1825 there were but 30 or 40 small craft and one steamboat of 350 tons burthen on lake Erie, and the first steamboat passed through lake Michigan in 1826 or 1827.

In 1845 there were at the lakes, above Niagara

*Compiled from the Report of the Commissioner of Patents, to Congress, 1847.

Falls, 60 steam vessels, having an aggregate tonnage of 33,000 tons, and 320 brigs and schooners of 53,000 tons, the whole costing \$4,600,000.*

The shipping of all the lakes in 1846 amounted to 136,836 tons, and was valued at \$6,000,000. The amount of merchandise transported that year was 3,861,088 tons, while that of 1841 was 2,071,892 tons—showing that the trade had nearly doubled in five years. The number of passengers transported in 1846 was 250,000, and the value of this business was estimated at \$1,250,000.†

The value of lake commerce in 1847, according to the report of the Hon. Washington Hunt, made to Congress, was over 141 millions of dollars, or only 13 millions less than the value of all the exports of the United States in 1848, and nearly double the value of all the products received at New Orleans in 1846 and 7 by the Mississippi river.

In all the immense territory which surrounds the great lakes, and which now produce this surprising amount of commerce, there was in 1818 but one organized State, and the total population did not exceed 500,000 souls.

At the present time, there is a cluster of six large States about these waters, containing a population of between four and five millions of inhabitants.

Embracing the States and Territories whose trade will float over these lakes to an eastern market, we have an area of nearly 300,000 square miles, or an extent of territory three times as large as the kingdom of Prussia, and nearly twice as large as France.

Examine the position and advantages of this favored region, which is almost encircled by those great inland seas, possessing an exuberant soil, a genial climate, and all the elements of national greatness—survey these magnificent lakes, with their five thousand miles of coast, their numerous harbors, the flourishing towns and cities which already stud their shores, and the thousands of miles of natural and artificial channels of communication collecting the rich products of the soil from every point of the compass, and pouring its treasures into these great national reservoirs—trace that noble river, the St. Lawrence, which forms the outlet to the ocean for these illimitable waters, and which seem designed by nature as the great highway of nations—consider the rapid progress of this country within a few years past in population, in improvements, in commerce and wealth—and picture its state a few years hence, when these fertile plains will teem with an active and enterprising population, when railways will spread a net work of iron lines over the whole length and breadth of the land, when the vast agricultural and mineral resources of the country shall be developed and the western lakes be covered with innumerable fleets, bearing these exhausted products—do all this, I say, and then estimate, if you can properly, the extent and value of the commerce of the mighty west.

There is one other consideration which I cannot omit to notice, notwithstanding the great and perhaps unreasonable length of this communication.—It is this. By the completion of your road, an immense trade will be drawn down the St. Lawrence, and through your canals, which otherwise will pass through other channels.

As an enterprise which will largely increase the revenue of these works, the value of lands, public and private, and the wealth of the whole country, it cannot, I believe, be questioned that it is pre-eminently deserving of the favorable consideration and encouragement of government.

You will, I trust, excuse the liberty I have taken in addressing to you these views, which I have been led to entertain of your great enterprise, and after the most careful examination and investigation of its merits in all its details, I feel the utmost confidence in stating, as my deliberate judgment, that if this undertaking is carried out on its original plan and principles, no work in this Province or the U. States of a similar character, will exceed it in the magnitude and importance of its results.

With sentiments of great respect

I have the honor to be, sir,

Your obedient, humble serv't.

A. C. MORTON.

* Letter on Lake Commerce, 1846, by James L. Barton, Esq.

† Report to Congress by J. J. Abert, Col. Corps Top. Engineers, 1848.

Worcester and Nashua Railroad.

We understand that the receipts on this road the last week exceeded \$2600; which is \$135,000 a year; and yet the travelling season has scarcely commenced; and the company's arrangement for freight are far from being perfected.—*Wor. Palladium.*

Statistics of the United States.

The Appendix accompanying the Report of the Hon. Richard M. Young, Commissioner of the General Land Office, gives the following interesting table:

STATEMENT

Of the areas of the thirty States of the Union, in square miles and acres; the population of each according to the United States census of 1840; the number of Senators and Representatives in Congress to which each was entitled; the number of Presidential Electors, etc.; also a comparative view of the difference in the population, etc., of the slave and free States, separately stated, from the most authentic sources:

Population according to the U. States Census of 1840.

Free States.	Slave States.	Area.		Population.			Total.	Area.		Population.			Total.
		Square miles.	Acres.	No. free white persons.	No. free colored persons.	No. slaves.		Square miles.	Acres.	No. free white persons.	No. free colored persons.	No. slaves.	
Maine.....		33,000	22,400,000	500,438	1,344		501,783	9,120	1,356,800	58,561	16,919	2,605	78,085
Vermont.....		8,000	5,180,000	291,218	730		291,948	7,010	7,010,000	317,717	62,020	89,495	469,232
N. Hampshire.....		8,030	5,189,200	284,036	637		284,673	39,265	290	740,858	49,852	449,087	1,339,797
Massachusetts.....		7,250	4,640,000	729,030	8,669		737,699	28,000	17,920,000	484,570	22,729	245,817	753,417
Rhode Island.....		1,200	768,000	105,587	3,238		108,825	58,000	37,120,000	249,084	8,276	327,038	591,398
Connecticut.....		4,750	3,040,000	301,566	8,105		309,671	37,680	24,115,200	407,695	5,753	182,358	779,898
New York.....		46,000	29,440,000	2,378,690	50,027		2,428,717	64,431	29,715,840	158,457	25,502	168,452	352,411
New Jersey.....		6,581	4,384,640	351,588	21,044		372,632	47,147	30,174,080	179,074	1,366	195,211	376,651
Pennsylvania.....		47,000	30,080,000	1,576,115	47,854		1,623,969	50,722	32,462,080	335,185	2,039	253,532	690,756
Ohio.....		33,809	25,576,960	1,502,122	17,345		1,519,467	67,380	43,123,300	323,888	1,574	58,240	383,702
Indiana.....		33,964	25,576,960	678,698	7,165		685,863	33,406	720	77,943	465	19,935	97,574
Illinois.....		55,403	35,459,200	472,224	3,598		475,822	52,198	33,406,720	77,943	817	29,717	84,477
Michigan.....		56,945	35,995,520	211,560	707		212,267	59,208	37,931,520	27,943	304	39,060	179,364
Wisconsin.....		53,934	34,511,360	220,571	185		220,756	32,520	208,332,800	140,000	30,657	4,694	43,712
Total.....		454,310	290,777,600	9,746,987	170,728		9,917,715	936,368	599,975,520	4,772,043	215,821	2,523,144	7,513,008

* According to the State census of 1847.

The free States have 30 Senators, 139 Representatives, and 169 Presidential Electors.
The slave States have 30 Senators, 91 Representatives, and 121 Presidential Electors.

TERRITORIES OF THE UNITED STATES.

The estimated surface of the Territories of the United States, north and west of the regularly organized States of the Union, and distinguishing the former from the newly acquired Territories, and the portions thereof situated north and south of the parallel of 36-30 deg. north latitude, in the Appendix to the same Report, is as follows, viz:

Former Territories, east of the Rocky Mountains.

Northwest Territory, west of the Mississippi River.—Bounded on the north by 49 deg. north latitude, east by the Mississippi river, south by the State of Iowa and the Platte river, and west by the Rocky Mountains, (all north of parallel 36 30)..... 723,348 462,878,702

Wisconsin Territory.—Balance remaining of the old North west Territory, east of the Mississippi river, and northwest of the State of Wisconsin (north of 36 30)..... 22,336 14,295,040

Indian Territory.—Situated west of the States of Missouri and Arkansas and south of the Platte or Nebraska river, held and apportioned in part for Indian purposes (north of 36 30, 190,505 square miles and 121,923,200 acres—south of 36 30, 58,346 square miles and 37,341,440 acres)..... 248,851 159,264,640

Total of old Territory..... 994,435 646,438,400

Newly Acquired Territories west of the Rocky Mountains.

Oregon Territory.—Bounded on the north by the parallel of 49 deg. north latitude, south by the parallel of 42 deg. north latitude, east by the Rocky Mountains, and west by the Pacific ocean (all north of 36 30)..... 341,463 218,536,320

Upper California and New Mexico.—Bounded on the north by the parallel 42 deg. north latitude, east by the Rio Grande from its source to the parallel of 42 deg. north latitude, south by the Gila river from its source to its mouth, thence by a line to a point one marine league north from the southernmost point of San Diego, and west by the Pacific ocean (north of 36 30 deg. 321,695 sq. miles, and 205,884,800 acres, south of 36 30 deg., 204,883 sq. miles, and 130,805,130 acres)..... 526,078 336,689,920

Totals of new Territory..... 867,541 555,226,240

Making together of former and newly acquired territory, 1,861,976 1,191,664,640

Texas, including the three divisions, viz: Texas proper, the country between the Nueces and the Rio Grande, and the Santa Fe country, (north of 36 30 deg. 43,537 sq. miles, and 27,863,680 acres—south of 36 30 deg. 281,923 sq. miles, and 180,469,120 acres)..... 325,520 208,332,800

Grand total of the Territories of the United States, including Texas..... 2,187,490 1,399,997,440

Newly acquired Territory lying north of 36 30 deg..... 1,599,247 1,023,518,080
Texas..... 43,537 27,863,680

Total north..... 1,642,784 1,051,381,760

Newly acquired Territory lying south of 36 30 deg..... 262,729 168,146,560
Texas..... 281,923 180,469,120

Total south..... 544,712 348,615,680

LENGTH OF SEACOAST OF UNITED STATES.

From the same report we obtain the data for the following statement, exhibiting the length of the seacoast of the United States:

From the northern limits of the U. States to the Cape of Florida on the Atlantic ocean..... 1,900 miles.

From the Cape of Florida to the mouth of the Rio Grande on the Gulf of Mexico..... 1,600 miles.

From the boundary point one league south of the port of San Diego on the Pacific, along the coast of Oregon and the Straits of Fuca to the boundary point, 49 deg. north latitude..... 1,620 miles.

Making together the length of seacoast on the Atlantic, Gulf and Pacific 5,120 miles.

Or a "shore line" following the irregularities of the shore and sea islands, according to an estimate of the Superintendent of the Coast Survey, of..... 33,063 miles.

The Protective Policy.

Continued from page 247.

According to Professor Tucker, a good free trade authority, the products of the U. States in 1840 amounted to \$1,092,134,000. The natural increase of population and productiveness would swell this amount at the present time to \$1,310,000,000. If we should deduct from this six per cent. as the interest of capital which goes into the product, which would be a very liberal allowance, it would reduce the annual worth of labor to \$1,231,000,000. Any financial system which should add six per cent. to the value and productiveness of labor would increase the wealth of the nation \$73,884,000 annually, being more than twice the amount which any one would think of obtaining from customs. Or, if we adopt the estimate of Mr. Secretary Walker, and set down the production of labor at \$3,000,000,000, and go through the same process, it would give us \$169,000,000 as the annual increase of wealth; being more than five times the amount of revenue ever collected from the customs in a single year. A judicious tariff, therefore, would protect labor, stimulate industry, and so develop the resources of the country as to increase the wealth of the people, while it should meet all the demands of the country.

The committee cannot agree with the honorable Secretary of the Treasury in his annual report, that a protective tariff is of necessity a tax upon the labor of the country, and that it tends to reduce the wages of labor. On the contrary, we are satisfied that a wise imposition of duties, by turning industry into new channels, will create a greater demand for labor, and the rate of wages will rise with the demand; and that the capital thus accumulated will seek investments in new enterprises, and that the laborer will reap his full share of the advantages. Equally unsound in his position that true economy in all cases requires us to buy in the cheapest market. The cheapest market for purchase may be the poorest for sale, and these may counteract each other. The terms of payment may also render the price the most economical in many cases. The hardy pioneer in the west would prefer to give fifty per cent. more for an implement of husbandry, or an article of clothing, if he could pay in produce at his own door, than if he was required to pay in specie. The homely adage of our farmers and mechanics—"that they must get things in their own line," contains more sound political economy than many of the positions of our free trade writers. The farmer or mechanic by getting things in his own line can turn many articles to a good account which would otherwise be useless, and give a value to a portion of time which would, under other circumstances, be lost: and though the articles thus obtained may nominally cost him more than the cash price at the mart of trade, yet to him it is an economical arrangement, and one which contributes to his wealth.

The same principle applies to rations.—The cheapest market is not always the most advantageous in the end. What we produce by extra labor, or by

converting materials which would otherwise be lost into valuable commodities, is much addition to the wealth of the nation. The principle may be illustrated by many examples which actually exist. Take the article of *straw goods*, of which we imported more than \$1,091,000 the last year. Admit, if you please, that we can purchase hats, bonnets and flats ten per cent. cheaper at Leghorn or Florence, or in any foreign country, than they can be manufactured in this, still it would be good economy to encourage this species of industry at home. This department of manufactures gives employment to thousands of women and children, and so converts labor, which would be otherwise lost, into capital, and thus adds to the national wealth, while it gives a comfortable support to a class of our population which might otherwise become paupers. Ready-made clothing and hosiery, of which we imported last year \$3,197,000, furnish another example in point. If a suit of clothes made in this country costs the wearer ten per cent. more than they could be procured for abroad, he himself may be remunerated by the employment given to the poor and destitute of our own country, which save them from pauperism and crime. Any policy which gives employment to the poor, not only contributes to their comfort, and saves the public from a pauper tax, but actually increases the wealth of the country. It is a narrow and mistaken policy which would procure every thing from Abroad, because its first cost might be a fraction less than it could be obtained for at home. If the farmer upon the rugged soil of New England should refuse to plant and sow, because grain could be produced cheaper on the fruitful prairies of the west, he would soon find that his inability to purchase would place even those cheap products beyond his reach. Such a policy is as ruinous to a nation as to an individual.

Nor is it a hardship of which the citizen has any reason to complain, that he is deprived of the benefits of a market in which he can purchase cheapest. There are considerations of a national character, *objects of state*, to which all good citizens are bound to submit. A merchant might obtain his goods at a lower rate if he could smuggle them into the country, or by false invoices evade the payment of one-half the present duty. But he has no legal or moral right to do it, because it would be defrauding the government and inflicting an injury upon the people. In time of war it might be profitable to an individual to trade with the enemy; but as this might tend to prolong the war, he has no right to do it. This is well understood and will be readily admitted by every intelligent citizen. Now this principle applies in all its force to the subject before us. If the protective policy gives employment to our own people, adds to the wages and productiveness of labor, and enhances the wealth of the nation, an individual has no more reason to complain that he is cut off from the the cheapest market for his purchases than he would have that he is prevented from trading with the enemy in time of war. In both cases, what might be a privation for the time being would prove a national blessing on the whole, of which he and all others would partake.

The first object in providing for the wants of the government, should be to adopt a system of revenue which will be most productive of the prosperity of the country. In such a system, no one calling should engross the fostering care of the government; but every interest should be provided for as far as possible. The capitalist should be protected in his property, and the laborer in his wages. As the wealth of a nation consists, in a great degree, in its labor, the toiling millions merit the special care of the government, and their prosperity, above all things should be sought. Upon their prosperity the welfare of the country mainly depends. But though labor in every department of industry merits equal attention, its claims can best be examined and its wants provided for when considered in classes. A great error prevails in the community in relation to the effects of a tariff upon the different classes of laborers. Some have vainly supposed that none but manufacturers' property had any interest in the protective policy. If the committee entertained this idea, they would abandon that policy altogether.—Though the manufacturers are a large and respectable class of our citizens, we would countenance no policy which would build them up upon the ruins or to the injury of other and more numerous classes.—

We believe that the common mechanics and the artisans, who are dispersed over the whole country, and whose labors are required in every village in the land, have as vital an interest in the American system as the manufacturers. In fact, we believe that the mining and navigation interests, and the far more numerous class which are engaged in agriculture, the parent calling of our race, demand a modification of our present revenue system. There is, we believe, such a community of interest among those engaged in the different industrial pursuits in this country, that whatever promotes permanently the interests of one class will redound to the benefit of all; and, on the other hand, any policy which tends to depress any one great interest will, in the end, prove injurious to every other. It is as true in the body politic as in the human body, "if one member suffers, all the members suffer with it."

To adjust a revenue system to the wants of all these classes—to protect the labor and encourage the enterprise of the whole people, requires the utmost care, and merits the most discriminating attention. A broad and liberal view should be taken of every interest; the wants of the government should be carefully considered; the direction and tendency of trade; the policy of the nations with which we are commercially connected; their internal condition; the worth of their capital and the wages of their labor; and whatever else distinguishes each country—all this should be carefully considered in adjusting a revenue system. The committee need not say that the multiplicity of their labors and the shortness of the session prevent their giving to this subject, at this time, the examination its importance demands.—We have time only to submit some brief considerations which naturally present themselves to our minds. While it is admitted that each of the great industrial classes in the community is equally entitled to the parental regard of the government, each should be fostered in a manner suited to its condition. The shipping interest should be encouraged by giving a preference to American bottoms, and by increasing as far as possible the coasting and internal trade of the country, where foreign shipping is entirely excluded. A judicious imposition of duties tends to promote the prosperity of the navigating interest. While the duty on coal, for example, is low, as it is at present, and a considerable portion of our supply, especially in our northern cities, is obtained from British provinces, the carrying is divided between our own and British shipping; but with increased duties our whole supply upon the Atlantic would be obtained from Pennsylvania, Maryland, and Virginia; and this would not only give employment to our own miners, but secure to our shipping the carrying, and thus a double advantage would be secured to our own citizens. And what is true in this case will be found true in many others. A liberal encouragement to our manufacturers would promote the navigation interest in a variety of ways. By reducing the duty on raw materials used in manufactures you not only increase our imports of these articles, but, as the raw materials are more weighty and bulky than the manufactured goods, you also increase the freight, and thus give employment to our shipping. Nor is this all: many of these articles thus brought into the country, when manufactured, are exported; and in this way a double advantage is secured to our commerce. During the last year we exported manufactured articles to the amount of \$12,981,000—being more than one-tenth of our entire domestic export—and the greater part of this consisted of goods made wholly or in part of materials brought from abroad. Encouraging domestic production and an interchange of commodities between the states adds greatly to our coasting and inland trade. The hides which are sent down the Mississippi to New Orleans, and thence conveyed coastwise to Massachusetts, where they are tanned with the bark from Maine, and then returned in the form of boots and shoes to New Orleans, furnish one among a thousand instances that could be named, in which our own carriers reap an advantage from domestic manufactures. The importance of our coasting and internal trade is too frequently overlooked when speaking of the interest of navigation. Mr. Walker, in his annual report, submitted December 9, 1847, estimates the interchanges between the states at \$500,000, a large share of which is the result of domestic manufactures. This part of the subject is so well understood by the

intelligent, far-seeing individuals engaged in commerce and navigation, that you will find our largest ship owners, and most of our intelligent merchants, advocates of the protective policy. The only exception to this general rule is found to exist in our great commercial emporium; and this is easily accounted for from the fact that three-fourths of the commerce of New York, from this side of the Cape of Good Hope, is on foreign account.

Any system which encourages labor and promotes the prosperity of the country must increase the exchanges between the different sections of the Union, and hence contribute to commercial prosperity. The sail could not be spread were not the hemp manufactured; the ship could not be freighted if the furrow were not turned.

The great interests of agriculture should by no means be overlooked. But the protection here is not so direct as it is with reference to some other interests. Some of the products of the soil, however, require as much protection as many other articles. Hemp is an important product of the soil, and one, too, which is ultimately connected with one arm of our national defence; and its production should be encouraged not only for purposes of state but for the benefit of the grower, and for the convenience of our commercial marine. Cotton, the great staple of the south, may not require any protection for its own sake; but any system which encourages manufactures in this country creates a greater demand for that article, and so tends to enhance the price; besides encouraging manufactures and the mechanic arts diversifies labor, and calls off thousands from the cultivation of cotton. The low price of that article shows most conclusively that too large a share of the southern population is engaged in that employment; and any system which should withdraw a portion of the labor from growing cotton, would make their labor more productive, and enable them to realize more profits from a less amount of cotton. Again, a suitable encouragement held out to the sugar planter, would naturally convert some of their cotton fields into sugar plantations; and not only the sugar, but the cotton interest, would eventually be benefited thereby.

A protective duty upon wool operates directly in favor of sheep husbandry; and as the mountain ranges through our whole country, and the vast prairies of the west, are admirably adapted to the growing of wool, this interest, which is destined to be one of great importance to the country, should be carefully cherished.

The agricultural interest is also promoted by a reasonable duty upon iron and coal. These articles in the bowels of the earth are of no possible value to the country; but when they are brought out by human skill and labor, they become valuable to the nation in a great variety of ways. Iron has always been regarded as an article indispensable to national defence: and in the present state of steam navigation, coal is scarcely less so. For those purposes alone, these interests commend themselves to public consideration. In connection with the farming interest they are equally important. Iron and coal are frequently found at a distance from the market, in regions where the price of land is low and provisions cheap. The opening of these mines creates a new and important demand for agricultural products, and so enhances the value of real estate in those regions. The importance of the proximity of a market can hardly be overrated. We have lands in our country of the same intrinsic worth for agricultural purposes, which will sell from \$2 to \$200 per acre, simply with reference to the nearness of the market. But the great value of manufactures to the agricultural interest consists in the market they open for the products of the soil. Taking the census of 1840 as the basis, and allowing for the national increase of manufactures and population, those at the present day engaged in manufactures, mechanic arts and mining, cannot be less than 1,100,000, and to this number we may safely add 10 per cent. for domestics, for laborers employed about the establishments, and for those engaged in transporting their commodities. This would make 1,310,000; and if we allow that three-fourths of these laborers have families, we would, on a fair estimate, have at least 4,000,000 of our population connected with manufactures and mining. These must be supplied with agricultural products; and as five bushels of wheat per head would be but a reasonable allowance, they

would consume 20,000,000 bushels annually, which would be one-fifth of the entire wheat crop of the country, after deducting the quantity required for seed. The same principle will apply to other articles of food. Those engaged in these employments must have meat as well as bread; and being about one-fifth of the population of the country, they will require one-fifth of the provisions of all kinds consumed in the country. Such a market is all important to the tillers of the soil.

We are aware that much is said, at the present day, of the great demand abroad for our agricultural products, and the idea seems to be entertained by some that the domestic market is of but little account of the grain growing portion of the country. But all such impressions grow out of a limited and partial view of the subject. If we take the export of wheat and wheat flour, for the last eighteen years, (see appendix A,) to all foreign countries, it will average only 7,527,400 bushels, and its value will average \$674,700 a year. And this includes the year 1847, when, by the unprecedented famine abroad, we exported more than four times the average quantity. If we exclude that year, the average since 1830 would be only 6,419,300 bushels, at a value of \$7,147,000. Even in the year ending the first of July last, the first five months of which reached back upon the period of scarcity in Europe, we exported but 12,631,300 bushels, valued at \$15,863,000—being less than half the quantity and value of the preceding year. In 1847, we exported 26,312,400 bushels of wheat in the form of wheat and flour; but that being the year of famine abroad, it cannot be safely taken into the account in our calculations for the future. We have already seen that in the year 1848 the export fell off more than one-half. When the famine and other causes of an artificial character shall have passed away, our export of wheat and flour will probably return to near the former average. At any rate, we know that those engaged in manufactures and mining in this country consume five times as much agricultural produce as the whole amount sent abroad. If we allow but ten cents per day for agricultural products consumed by each of the 4,000,000 of inhabitants connected with those callings, it will give a grand total of \$146,000 annually; being \$108,275,457 more than the whole amount of animal and vegetable food sent abroad last year, when our export of those articles was unusually large. These facts show most conclusively the importance of the home market to the cultivators of the soil.

Another great advantage of the domestic market over the foreign, is its permanency. A glance at our export will show the fluctuating, unstable character of the foreign market. In 1838, we exported 1,319,000 bushels of wheat; 1839, 4,670,000 bushels; and in 1840, 11,106,000 bushels; in 1845, the export fell down to 6,356,000 bushels; the next year it rose to 13,060,000 bushels; the year following it went up to 26,202,000 bushels; and last year it came down to 12,561,000, being a falling off of more than one-half in a single year. Such is the character of the foreign market for bread stuff. When the crop is good on the eastern continent, they want little comparatively from us; but when their crops fail, they look to us for a considerable portion of their supply. While an uncertain, fluctuating market is injurious to every class of producers, it is peculiarly so to the agriculturalist. Grain is the product of a year, and the farmer must make his calculations for the amount of his supply when he sows his seed. If he sees, two or three months before harvest, that the demand will be great or otherwise, he cannot increase or diminish his crop. If the demand be great, he has not a sufficient quantity to meet it; if it be small he may have a surplus left upon his hands, which will reduce the value of his whole crop. Many articles of agriculture like the potato, are perishable in their nature and will last but a single season; and hence the necessity of a constant, certain market. Many articles of manufacture may be the product of a month or a week; and hence the manufacturer can, at short notice, increase his production to meet the demand; and his products being more perishable than provisions, can be kept longer, in case there is no ready sale. But the farmer must depend in a great degree upon the demand of the year; if he looks abroad for a market, he never knows, at seed time, what will be the demand at harvest.

But while the foreign market is thus fluctuating

and uncertain, the home market is constant and sure. The four millions in the midst of us, engaged in manufactures and mining, will want their supply annually, and they look to the American farmer alone for that supply. Suppose that the manufacturers at Lowell or Pittsburgh, should require 50,000 barrels of flour annually, and certain manufacturing districts in Great Britain should require the same average amount of American flour. The county in Ohio, for example, which should supply Lowell or Pittsburgh, would have a certain market; the growers would know, before they sowed their seed, what quantity of land to put under wheat culture. They could calculate with a good degree of certainty, and shape their means to their ends. But the county which should supply the manufacturing districts in Great Britain would never know beforehand how much to sow. Though that district might, in a given number of years, take the same amount of flour as Lowell or Pittsburgh, yet as their wants would depend upon the crops of Europe, they might take but 25,000 one year and 75,000 the next, so that the grower in Ohio could make no safe estimate in advance how much seed to commit to the earth. If he should sow the usual or average quantity from year to year, he would, in one instance, have a surplus of 25,000 barrels, and in the other a deficit of the same amount. Every practical man will see at once that the county which should supply Lowell or Pittsburgh would enjoy a decided advantage over the country which should depend upon the manufacturing districts in Great Britain. In fact, every view we can take of the subject shows the advantage of the home over the foreign market.

The abandonment of the protective policy would inflict a deep injury upon the farming interest, of the country. It would not only destroy or greatly impair this valuable home market, but, by breaking down our manufactures, thousands upon thousands of those now engaged in that great branch of industry would be driven into agriculture; and so, instead of being consumers, would become producers of agricultural products. Thus, by reducing the demand and increasing the supply, the price of agricultural produce would be reduced, and a deep injury would be inflicted upon the calling. Another important consideration presents itself in this connection. As all manufactured goods contain a portion of agricultural products, there is this remarkable difference between American and foreign fabrics; the former, as far as agricultural products are included, are wholly American, while the latter are mostly foreign. The farmer in Tennessee or in Ohio, for instance, when he buys a suit of clothes manufactured in this country, knows that the wool of which it is composed was grown in his own state; that the laborer, when manufacturing the cloth, was subsisting upon the meat and bread of the west; and that by patronising domestic fabrics, he is creating a market for his own staples. But if he buys a suit of foreign cloth, he knows that the wool was grown in Europe, and that at least nine-tenths of the provisions consumed by the laborers are the product of foreign soil; and that by patronising foreign fabrics, he virtually brings foreign provisions into this country to compete with our own. This consideration alone should teach the American farmer the impolicy of suffering our own manufacturers to languish.

North Carolina.

This State is at last thoroughly aroused to the great work of internal improvement. We are happy to see that in this movement she has acted entirely independent of party and local considerations. The necessity of doing something to maintain her relative position in the Union—to retain her population and trade within her own limits—has forced her into the construction of railroads. The cost of transportation has just as much to do in regulating the price of agricultural products, as cost of production; and those occupying a poor soil may, from this access to a market, have a great advantage over the most fertile districts having no outlet for their staples. North Carolina, with an immense line of sea coast, and an area equal to almost any State in the Union, has remained stationary for

nearly twenty years. Her increase in population, from 1830 to 1840, numbered but a few thousand, and we presume that the next census will not show a greater gain. Massachusetts, with a poorer soil, and with only about one-seventh of territory, will in 1850 number nearly if not quite 100,000 more inhabitants than the great State of North Carolina! Think of this, ye people of the old North State. Massachusetts has expended \$50,000,000 upon railroads within her own borders, besides vast sums upon those in other States. She has left nothing undone which could develop her resources; while North Carolina has done nothing to develop hers. Here lies the difference. The following extracts show that the right kind of feeling is abroad, which cannot fail of producing the best results:

Extract from a communication in the Raleigh Star.

From the commencement of the road at Goldsborough, there is easy and direct water navigation, at all seasons of the year, to Newbern, and thence to the ocean. The waters of the Tarr and Roanoke rivers are readily approached through the present Wilmington and Raleigh road; they being in a few hours travel of Goldsborough. Passing above the Capitol of the State, the proposed road will cross the Deep river at some point not far from the place to which it is contemplated to make it navigable, and if above it, not too far to render the advantages of both works available. When it arrives at Salisbury, it then has two other important works to increase its prospect of being useful to the whole State, viz: the plank road to Fayetteville and the western turnpike; and in addition to this, the waters of the Yadkin will be rendered navigable—thus opening a direct channel of communication between the extreme west and north-west and the eastern section of the State.

This plan carried out, in connection with others which will necessarily result from its completion, will give the citizens of the State a choice of markets, and free them from the commercial vassalage under which they have been groaning for many years. Instead of depending upon other States for a mart to which to send the produce of our farms, our manufactures and our mines, we could create interests which would soon erect places of extensive trade and valuable traffic in our own borders. We may be called visionary, but it does not seem to us that we would as easily make Wilmington, Beaufort, Newbern, Washington and other towns in our borders, as prominent in the world of trade as many cities in the Northern and Western States which cannot boast of half their natural advantages. See what one road running directly across the State has done for Wilmington. Since its completion, she has more than doubled in population, in value of real estate and in commerce. What might we not expect, if instead of building our public works so as to tend to, and terminate in the seaports of other States, we were to make them all centre in some of our towns, as Massachusetts has done in Boston?

She has built seven roads all more or less coming into competition with each other, and all centering in the city of Boston; and they yet are all flourishing, and the State prospers greatly. But, it may be said that North Carolina is too poor to undertake such wild schemes. Yes, and she will be too poor until the day of judgement, if she does not commence some improvement in a short time. Massachusetts would never have been of one-tenth the importance she now is, had not the liberality and public spirit of her citizens contributed to break those fetters of commerce and agriculture which Nature had thrown around her.

Look at the example of Virginia even. With a heavy public debt of eight or ten millions of dollars, she, every session of the Legislature, is appropriating hundreds of thousands of dollars to works of internal improvement which an inhabitant of any State would consider perfectly chimerical; and yet she prospers under it. But it will be said that will burden us with a debt, and consequently tax us like the Virginians are. Our reply would be, far better to incur double the debt and taxation than to remain in this state of destructive and debasing inactivity. What matters it with a people, if you double their taxes, provided you give

them thrice the ability to pay? Would we not all be willing for the State to increase the debt in proportion as she increases our ability to pay—to carry out some work that will aid us to raise from the lethargy we are in? Who would not be proud to see North Carolina rank foremost among her neighbors in commerce and trade, even if she were five or ten millions of dollars in debt? And yet she can never expect to gain any eminence in the commercial world, in her present situation—as well might you expect a sandy waste to bloom like a garden.

From the Greensborough Patriot.

Our eastern fellow citizens must come up to the help of the great work of the Central Railroad, if they do indeed desire to establish the bonds of interest and of social regard with the west forever. It will require a union and cordial co-operation of the east and the west to effect this glorious object. The west alone cannot do it without an extraordinary concentration of capital and labor such as we seldom find in a large and sparse community of people. Many of our moneyed men will continue their capital, from the mere force of habit, in other investments which are yielding them a small but steady income. True, the labor power of the country is fast arousing to the importance of the work, and only requires direction and proper development to make it efficient in the accomplishment of any practical human undertaking. But we must have money too, and more of it than can be raised on the immediate line of the road. If the men of the east and west be brethren, and desirous of cultivating the sentiment of filial regard, they will unite heart and soul in this undertaking. Without such union, effected at this time and upon the contemplated scheme—they are dissevered forever! Their interests and intercourse will inevitably be in different directions, and their councils will be a continual scene of wrangling and bitterness, worse if possible than has hitherto retarded improvement and disgraced our attempts at liberal legislation.

From the Hillsborough Democrat.

INTERNAL IMPROVEMENT MEETING AT ORANGE.

Some four hundred citizens of western Orange assembled at New Providence on Saturday, the 17th instant, pursuant to previous appointment, for the purpose of making some demonstration of popular anxiety in regard to the completion of the great system of Internal Improvement, adopted by our last Legislature. It was auspicious of a better day, dawning on North Carolina, thus to witness the intelligent and patriotic farmers of our country—the strife and contests of party forgotten—assembling in one common brotherhood, endeavoring to forward by their co-operation a work so eminently calculated to develop and promote the wealth and prosperity of our good old State.

The meeting was organized by the election of Gen. Benjamin Trolinger, President, Col. Wm. A. Carrigan and Dr. P. A. Holt, Secretaries. The President entertained us with a short and practical address, in which he happily alluded to the unfortunate political acrimony heretofore existing between the two parties, preventing our Legislature from doing anything to develop the resources of the State. Dr. Michael Holt, J. Gant, George Hurdle, D. A. Montgomery, Thomas Sellars, Wm. Tarpley, John Holt, Esq., Bennet Hazel and Isaac Holt, were appointed a committee to prepare matter for the consideration of the meeting.

After retiring a short time the following preamble and resolutions were presented and adopted.

Whereas, the last Legislature by the united wisdom of the members of both political parties have passed various bills of Internal Improvement, viz: To open Cape Fear and Deep rivers; to construct a plank road from Fayetteville to Salisbury; and to build a railroad through the State, from some point on the Wilmington road via Raleigh to Charlotte, all of which, if successfully completed, will not only stay a rapid tide of emigration from the old North State, but will in our opinion, by affording facilities to trade and commerce tend to build up her citizens in prosperity and wealth.—Therefore,

Resolved, That this meeting, being deeply impressed with the fruitful results that would likely grow out of the Acts passed by our Legislature devising a system of Internal Improvement, especially the one authorising a Central Railroad, do cordially approve the same, and should it pass through Or-

ange, we pledge our best efforts for its successful construction.

Resolved, That the people having assembled together in various sections of the State, and approved of the plan of said Central road, is evidence that the work will be accomplished.

Resolved, That Samuel L. Holt, Thomas Sellars, George Hurdle, John Holt, W. M. Tarply, George Freeland, Bennet Hazel, Jesse Grant, P. A. Holt and D. L. Ray, be appointed delegates to attend a convention to be held at Salisbury, in June next, to represent this section of the country, and urge upon said convention the advantages of running said railroad through the county of Orange.

Resolved, That John Trolinger, Peyton Moore, and Giles Mebane, be appointed a committee to visit, correspond or inquire of resources necessary to obtain all adequate information relative to the coast, and best plan of executing and grading, and report the same through the medium of our public papers in this county, at the earliest period practicable.

The meeting was favored with several addresses by gentlemen present. Amongst others by our late Representative, Giles Mebane, Esq. He gave us much valuable statistical information in regard to the probable benefits growing out of the construction of the road; more especially those accruing to the great agricultural interests in its vicinity. Everything passed off in harmony and good order—every one present evincing a disposition to listen attentively, and weigh well everything said concerning a subject of so much magnitude and importance.

BENJ. TROLINGER, Pres.

WM. A. CARRIGAN, } Secretaries.
P. A. HOLT, }

The St. John and Shediac Railway.

The House of Assembly of New Brunswick, on motion of Mr. Ritchie, have re-considered the St. John and Shediac railway, and passed a resolution in favor of this line. The Province is to take \$150,000 of the stock, and guarantee £150,000 for a term of years, at an interest of 6 per cent. per annum, leaving the remaining £200,000 to be taken up by individual subscription. The resolution passed 19 to 12.

Pittsburgh and Wheeling.

The Pittsburgh Chronicle, of Saturday, has the following article. The scheme of a railroad to unite the two points, heretofore regarded by many as irreconcilable rivals, is here presented in a chartered form:

The Pittsburgh and Wheeling Railroad—We are gratified to learn that during the recent session of the Pennsylvania Legislature, an Act was passed authorizing the construction of a railroad from Pittsburgh to Wheeling. The Legislature of Virginia we believe has not yet acted in the matter, but it is quite certain that it will soon pass a similar bill.

In a commercial point of view, the advantages of such a work to our city cannot be over estimated. Commanding as it would the trade of Ohio and Western Virginia, it would greatly increase the business of Pittsburgh, and add immensely to our wealth. There is no reason why we should not reap the benefits of that trade. Pittsburgh, from its position and importance, ought to possess all the advantages that can be derived from it, and to secure this important matter, it is only necessary for our citizens to act promptly and in concert.

Another important consideration is the vast number of merchants and others that it would attract to our city. At present a portion of the travelling public take the stage at Wheeling, and by way of Washington and Brownsville, pass on to the eastern cities. Now, by the construction of the contemplated railroad, Pittsburgh would be visited by all or nearly all of our western and southern merchants, and the business of the city would be vastly increased.

With such incentives to action it cannot be that our citizens will remain indifferent. It is a subject that affects their interests and touches their pockets. As a matter of course they will act immediately and vigorously, and secure the completion of a work that will increase the value of their property, and add to the wealth of Pittsburgh.

Special thanks are due to Major William Larimer, Jr., for the active part taken by him to advance

this important measure. With his characteristic energy and enterprise, he urged upon our Representatives the propriety and necessity of passing such a measure, and we trust the day is not far distant when he will see his hopes realized, by the construction of a railroad from Pittsburgh to Wheeling.

Debts of the States.

The following may prove interesting to most of our readers:

	Debt.	Pop.	P. head
Maryland.....	\$12,000,000	405,000	\$30
Pennsylvania.....	41,000,000	2,125,000	20
Louisiana.....	9,500,000	470,000	20
Alabama.....	9,000,000	690,000	13
Ohio.....	19,000,000	1,850,000	10½
New York.....	24,000,000	2,750,000	9
Massachusetts.....	6,200,000	850,000	7¼
Virginia.....	7,390,000	1,260,000	6
Kentucky.....	4,200,000	850,000	5
Tennessee.....	3,200,000	950,000	3½
Illinois.....	21,000,000	750,000	29
NON-PAYING STATES.			
Michigan.....	7,500,000	370,000	20
Mississippi.....	10,500,000	640,000	17
Indiana.....	9,500,000	690,900	5½

The Florence Gazette, "after much research and investigation," gives the following as the actual liabilities of Alabama:

Amount in 1850.....	\$1,113,000 00
" 1852.....	300,000 00
" 1858.....	1,043,555 54
" 1863.....	3,475,000 00
" 1865.....	959,000 00
" 1866.....	2,317,000 00

Total.....\$9,207,555 55

From this it deducts the good assets of the Bank, valued at \$2,207,534—leaving a balance of \$7,000,021 55.

The interest on the state bonds, as above given, is payable at New York and London at the following periods, annually:

Amount due 1st January.....	\$71,513 90
" 1st April.....	3,000 00
" 1st May.....	105,850 00
" 1st June.....	85,780 00
" 1st July.....	71,513 90
" 1st October.....	3,900 00
" 1st November.....	105,850 00
" 1st December.....	25,000 00

Total each year.....\$471,507 80

ILLINOIS.—The aggregate debt of this state is set down in the Governor's message at \$16,661,795 37. Of this, \$8,042,622 is canal debt, and is amply provided for. For the remainder, the Legislature has to make provisions.

The Naumkeag Mill.

GEN. CHARLES T. JAMES.

This cotton mill is beautifully located at Salem, Mass. It is the largest in the United States, and is believed to be the largest in the world in which the entire process of converting raw cotton into cloth is carried on under one roof. The mill is an elegant structure, something more than 400 feet in length, and about 65 feet in width. It is four stories high, and contains 31,332 spindles, (Mason's self-acting mules,) 650 broad looms, and the other requisite machinery. The machinery is driven by a steam engine of 400 horse power. The consumption of anthracite coal is 6½ tons per day, to generate steam for the engine for the mill and machine shop, to warm the mill and offices for drying, making sizing, and all other purposes. The arrangement of the machinery is made on the most simple and economical principles, and the whole is geared from one upright shaft, which takes its motion directly from the main wheel. On the side of the street opposite the factory are two beautiful blocks of brick houses for the accommodation of the operatives. They are together, of the same length of the mill, and cost the company about \$35,000, exclusive of the land. The entire establishment, including these dwellings, the machine shop and three or four wharf lots, cost the company nearly \$600,000. Yet such is the quality

of the goods and the reduced cost of manufacturing, that the mill has run at a handsome profit during the late hard times.

This mill was planned and constructed by our fellow townsman, Gen. Charles T. James, and has been in full operation since February, 1847. Though in the prime of life, Gen. James is a veteran in his profession. He has devoted more than twenty years to it, and with the aid of a first rate genius of his own for mechanical and mathematical science, has labored most assiduously to perfect himself in a knowledge of its scientific and practical departments. He has been eminently successful, and as, emphatically, a self-made mechanic, manufacturer, and engineer, deserves much credit. In proof of this, we will adopt the rule he uniformly practices on, when applications are made for his services, that is, refer all inquiries to his past employers and to the works of his hands. Another rule to which he uniformly adheres, may also be recommended to every good mechanic. To have nothing to do with what is called a *cheap establishment*; as a good reputation can never be established on the basis of bad work. His caution to the mill owners is, and to which they would do well to take heed, that the ultimate loss of thousands frequently results from the incipient saving of hundreds.

During the period which Gen. James has devoted to his profession, he has constructed, either wholly or in part, more than twenty cotton mills, and put in operation two hundred and thirteen thousand spindles. Some idea may be formed of the extent of his business and its arduous character, from the fact that, for some three years past, he has paid out for contracts he has personally made with machinists, builders, &c., for machinery, materials, labor, &c., on an average of about \$500,000 per annum; and besides which, he has constantly had on his own hands the business agency and general supervision of two or three cotton mills. Added to this, is the fact that the mills he has had in hand during that period, some of which are completed and others of which are now in progress, are situated, some in Massachusetts, some in Connecticut, one in New York, some in Pennsylvania, one on the Ohio, 130 miles below Louisville, Ky., and one in Charleston, S. C.—*Providence Journal*.

In addition to the above, we are happy to state that Gen. James is about publishing a work upon the cotton manufacture, and the influence it does now, and may be made to exert, on the political economy of the country. We have had the privilege of a hasty glance at its contents, and we shall be much surprised if it does not exert a powerful influence upon the minds of our southern brethren in relation to the question of domestic manufactures, and confer great advantages upon them, in pointing out the only way by which their great staple may again be made to command a remunerating price. We hope, in our next number, to be able to bring some portion of it before our readers.

The Coal Trade.

The meeting of our colliers held at the American House, in this borough, on Saturday last, was well attended and exhibited a spirit of determination which to our mind is equal to the present emergency.

The meeting was addressed in an able and highly satisfactory manner by Joseph S. Silver, Esq., on behalf of the Committee previously appointed to confer with dealers in coal, and others interested, in the Atlantic cities, and to report on the general state of the trade. He was followed by Benj. Haywood, Esq., who traced the history of the coal business for a series of years past, affording a clear, practical view of the causes which have led to our present embarrassments, and concluded by exhorting his fellow operators to act as one man in the present just and honorable movement, as the only means left of saving themselves from utter bankruptcy and ruin.

The following resolution was offered and adopted by acclamation:

Resolved, That the suspension of our coal shipments be continued until the Committee on the state of the Trade recommend a resumption of the same.

On motion, the meeting then adjourned to meet again on Saturday next.

An immense mass meeting of the citizens of

Schuylkill county, was held at the America House, on Monday afternoon, to encourage and sustain the operators in their manly effort to obtain something like a fair equivalent for their capital and labor. Several able addresses were made and resolutions adopted with great unanimity. The proceedings as officially reported for the Emporium, will be found in another column.—*Pottsville Emporium.*

Meeting of the Coal Shippers.

We learn from the *Ledger*, that a meeting, fully represented, of the coal shippers, was held at the Office of the P. & R. Railroad, Philadelphia, on Monday evening, at which John Tucker, Esq., presided. It was resolved that the price of coal for shipment, should be \$4 for Red Ash, and \$3 62½ for White Ash—corresponding to the prices fixed by the operators here. A Committee was appointed to confer with the Committee appointed by the operators, and who proceeded to the city on Tuesday.

This is certainly encouraging, and looks as though some great good may grow out of it—particularly if the railroad and canal companies can be induced to come promptly to the rescue.—*Ibid.*

AMERICAN RAILROAD JOURNAL.

Saturday, April 28, 1849.

Railways in New Brunswick and Nova Scotia.

In another part of this week's paper will be found a report submitted to the Canadian Legislature, showing the capacity of her public works already constructed, in connection with those proposed, to draw a portion of the western trade and travel over them through the city of Montreal to the Atlantic. Similar views in relation to the trade of the west have been engaging the attention of the Provinces of New Brunswick, Nova Scotia, and they are still seriously proposing to draw a portion of this trade still further east, and place themselves in the great line of communication between that section and Europe, by a railway from Quebec to Halifax, a distance of 635 miles, through the eastern part of these Provinces.

We have before us the Report of Major Robinson, of the Royal Engineers, of the survey of this route, which embraces an elaborate argument in favor of its construction, drawn from political considerations, and proposing it as the means of reviving the depressed condition of business in those Provinces, and as furnishing an Atlantic outlet to the trade of the St. Lawrence.

We should be very sorry to see these Provinces embark in the construction of this road. In the first place, if commenced, there is not strength enough in the Provinces to complete such a road, estimated by Major Robinson to cost twenty-five millions of dollars, & it would not do business enough to pay its running expences if constructed. The political reasons that led to the selection of the route, the furthest removed from our territory, to avoid interruption in case of war, and which appear to have exerted great influence, seems to us of very little weight. War between this country and Great Britain is now hardly within the bounds of possibility. But in case of a war does any person suppose that this latter power could retain possession of all parts of this road at the same time? All her military force directed to this one object could not protect it. Again, the continuance of the connection between the mother country and these Colonies is becoming every day more problematical. They must by this time see that the mother is gradually weaning her children, and preparing the way for their final emancipation. She is adopting a new line of policy. She believes that she possesses within herself more of the elements of commercial and manufacturing greatness than any other nation; that with univer-

sal free trade she can distance in the race all other competitors, and her motto is, or will soon be, "*rich customers, not poor Colonies.*" Even if they are not annexed to this country, there is every probability that the present commercial restrictions between these Provinces and the United States will be removed. A project having in view the removal of many restrictions between this country and the Canadas, was very favorably entertained by the last Congress, and will undoubtedly pass at its next session. So that all arrangements based upon the idea of war, or upon the continuance of the present state of things are most dangerous expedients.

The political reasons for the route selected being disposed of, the next question is, whether its trade and traffic will justify its construction.—For the first 200 miles from Quebec it runs along the bank of the St. Lawrence, through a territory containing a population of 75,000 Canadian French only. So far, it runs parallel with, and must encounter the competition of water carriage, and could not successfully compete with it in heavy transportation. Again, this French population are as a class miserably poor, producing nothing, or next to nothing for export, of course are able to import nothing of consequence. Railroads derive their best support from manufacturing and commercial towns. From the St. Lawrence to Bathurst, a distance of 164 miles, the whole population in striking distance of the road will not exceed 10,000! From thence to Bay Verte the counties in New Brunswick, through which it passes, contain a population of 67,391. These people can import but little; and if they have anything to export, they have a water communication at their own doors; from which they can as well forward as from the termini of the road. Nova Scotia offers no better inducements for railway construction than her neighbor. She enjoys better facilities of transporting all her products in the excellent harbors with which her whole territory is penetrated, than a railroad can offer. We cannot find in the local business of the line any encouragement for the building of this road. The great object of railroads is to open communications to sections that enjoy no suitable natural avenues through which to receive and forward their articles of consumption or exportation. These avenues the inhabitants of these Provinces already enjoy to a remarkable degree.

The through business, as it is called on this route, offers as little encouragement as the local traffic. The exports of the St. Lawrence, with the exception of timber, which this road does not propose to carry, are the products of Upper Canada. No one for an instant can suppose that the produce of this Province would seek the Atlantic, via Quebec, and a railway of 635 miles, when on their passage through Lake Ontario they pass within 189 miles, by railway, of tide water at Albany. Even after they reach Montreal they can reach the Atlantic coast by the St. Lawrence and Atlantic road, in a distance of 275 miles. We must take into account too, that from its high northern latitude, the proposed road would be blocked with snow for that part of the year when its services would be most wanted; and from which, from the few inhabitants along the line, it would be impossible to keep it clear.

To us it seems that the true cause of the present depressed state of these Provinces is the want of a suitable market for their productions. She has lost the advantages she once enjoyed from the connection with Great Britain; at the present time a railroad would bring no relief. They find no difficulty now in bringing their products to tide water. They are produced at the water's edge. Their na-

tural and appropriate market is the United States, and if they enjoyed free and unrestricted commerce with us their trade and business would at once revive, and they could not fail of becoming, from the great commercial advantages, and from their great mineral and agricultural resources, one of the most flourishing portions of North America.

In our judgment, the only hope of the people of these provinces for the obtaining of a connection by railway with the trade of the west, is by extending a line in the direction of Bangor, Maine. From Bangor to Montreal an uninterrupted line of road will in a very few years be completed; and from the city of St. John to Bangor, the distance by railway may be probably reduced to *one hundred and fifty miles*. But allowing fifty miles more for deflection of the line, it will then require but 200 additional miles of road to complete the connection with Montreal, the most important point in the west for them to reach, in a distance of about 550 miles. Whereas to reach this point by the way of Quebec from Halifax, the distance is over 800 miles. If, therefore, the Province of New Brunswick would extend a line of railway from the city of St. John to Bangor, and a line was extended from St. John east to the Bay of Shediac, and from that point to Halifax, or on the shortest practicable line between the two cities, around the Bay of Fundy, both Provinces would be sufficiently well accommodated for all the great purposes of business and travel.

Foreign News.

The *Cambria* reached Halifax on Wednesday last. The news to April 14 forwarded by telegraph is of the most interesting character.

War is going on in various parts of Europe.—The money market in England was unsettled. Cotton has slightly declined. Breadstuffs are advancing. The disturbances on the Continent are affecting all branches of trade.

Population of Canada.

The official estimates make the present population of the two Canadas very near a million and a half of people—in actual figures, 1,891,421; of whom 768,334 resides in Lower, and 723,087 in Upper Canada.

Each of these colonies sends 42 members to the provincial parliament.

The Cumberland Valley Railroad Co.

The Cumberland Valley Railroad extends from Harrisburg, the county town of Dauphin county, the capital of the State, on the east bank of the Susquehanna, through Carlisle, the county town of Cumberland, and several other smaller places to Chambersburg, the county town of Franklin, in the Commonwealth of Pennsylvania.

The road which crosses to the west side of the river at Harrisburg, by a bridge of nearly one mile in length, is 52 miles long, graded for a double track, almost a straight line, and very easy grades, laid with a flat bar on wooden rails, and runs directly through the heart of the Cumberland valley, noted as being one of the richest, most fertile, and highly improved of that state. The original cost was the sum of\$875,000

The real estate and other property of the Company, embraces a Bridge nearly new over the Susquehanna river, which cost about the sum, and produces a nett revenue of 7 per cent. thereon.. \$110,000
Real estate on the east side of the river at Harrisburg, that cost 4,000
On the west side of the river at Harrisg 1,000

An office and valuable lot at Carlisle...	2,500
A Depot, tavern stand, machine shops, &c. at Chambersburg.....	15,000
Water stations and wood lots along the line.....	1,250
	\$133,750

The running force on the road and belonging to the Company, consists of	
8 locomotive engines, each worth \$3,500	\$28,000
4 passenger cars	1,250, 5,000
4 baggage cars	450, 1,800
12 burthen cars	200, 2,400
8 mules.....	1,000
Machinery in shops, tools, &c. at Chambersburg.....	3,500
	41,700

The liabilities of the Company are—	
Capital Stock, 9,400 shares, of \$50 each is	\$470,000
Less.....1,700 " a donation by the state, of \$50 each	85,000
Shares.....7,700.....	\$385,000

Loans secured by mortgage, payable in the year 1859; bearing six per cent. interest per annum.	
Bonds of the first class.....	\$104,500
" second do.....	290,615
" third do.....	52,600 \$447,715
	\$832,715

A law passed at the last session of the Legislature of Pennsylvania, confers upon the company the right of funding the entire amount of outstanding bonds, provided the additional sum of half the amount thereof is subscribed in capital at par into an 8 per cent. preferred stock, which, with other resources at the Company's command, is sufficient to relay the road with a heavy T rail of 56 pounds to the yard, and provide the requisite running force to meet the growing demands of the business passing over the road.

The receipts of the Company since the completion of the Bridge over the Susquehanna river have been:—

	1847.	1848.	1849.
January.....	6,849 02.....	8,081 90.....	8,648 33
February.....	7,995 29.....	9,591 49.....	10,355 78
March.....	11,250 08.....	10,034 68.....	10,156 42
April.....	10,396 73.....	9,242 98	
May.....	9,188 42.....	8,130 71	
June.....	10,415 79.....	7,630 84	
July.....	7,786 15.....	7,645 77	
August.....	8,197 87.....	8,641 63	
September.....	8,866 51.....	9,504 05	
October.....	10,140 61.....	8,788 91	
November.....	9,879 14.....	7,597 79	
December.....	7,027 82.....	7,575 28	

\$107,993 42 \$102,466 03

	1847.	1848.
Gross receipts.....	107,993 42.....	102,466 03
Current expenditures.	65,900 39.....	61,534 37

Surplus.....\$42,093 03 \$40,031 66

This income is derived from the passenger travel, motive power, bridge tolls, and tolls on merchandise passing over the road; the freighting being done by forwarding merchants, in consequence of the Company not owning any burthen cars beyond what are necessarily employed in keeping up the repairs of the road.

At present this road has an outlet to the seaboard by a connection with the Harrisburg and Mount Joy railroad leading from Harrisburg to Lancaster and thence by the State road running to the city of Philadelphia.

Philadelphia. Recently the stock to a company for making a road from York to Harrisburg, along the west bank of the Susquehanna, to connect with the Cumberland Valley road, has been subscribed, and already the line is under location, and proposals for its construction within eighteen months invited; on the completion of which, and by its connection with the Baltimore and Susquehanna road, running from York to Baltimore, the Cumberland Valley railroad will enjoy the advantage of a double connection, and a choice of routes for its trade and travel either to the commercial metropolis of Philadelphia or Baltimore.

A part of the above article was inserted in our last issue. By request we give it another insertion. Our readers will notice some corrections in, as well as additions to, the original article.

Canadian Affairs.

The New York papers of Friday morning furnish telegraphic reports from Montreal, giving the particulars of a serious riot in that city. On Wednesday afternoon, Lord Elgin went down to the Legislative Council, and gave his assent to a large number of Bills, including that for the payment of the rebellion losses, whereupon a very serious riot took place in this city that evening. The enraged Tories fired the Parliament Buildings, which were burnt down, and the Legislative Records of Upper and Lower Canada, with one of the most valuable and extensive Libraries on this continent, and the Furniture, Pictures, etc., entirely consumed.

Hon. George Moffatt, member of the Legislative Council, and President of the British American League, has been arrested on a charge of Treason, connected with the riots.

The windows of Mr. Hincks' house were broken. The Governor General and family came in from Monklands, and are at Donegana's Hotel; military guards were placed over the houses of all the ministers.

One hundred and forty-eight warrants for arrests have been issued.

P. S. DEVLAN & CO's Patent Lubricating Oil.

THE Subscribers invite the attention of Railroads, Steamboats, Machinists, etc., to the above article of Oil; they are prepared to supply it in any quantity. Certificates of its superiority over all other oils, from several of the largest Works and Railroads, can be seen at our office.

KENNEDY & GELSTON,

54 Pine street, New York,

Sole Agents for the New England States and State of New York. 1yl4

ENGINEERS.

Arrowsmith, A. T.,

Buckfield Branch Railroad, Buckfield, Me.

Berrien, John M.,

Michigan Central Railroad, Marshall, Mich.

Clement, Wm. H.,

Little Miami Railroad, Cincinnati, Ohio.

Fisk, Charles B.,

Cumberland and Ohio Canal, Washington, D. C.

Felton, S. M.,

Fitchburg Railroad, Boston, Mass.

Ford, James K.,

New York.

Gzowski, Mr.,

St. Lawrence & Atlantic Railroad, Montreal, Canada.

Gilbert, Wm. B.,

Rutland and Burlington Railroad, Rutland, Vt.

Grant, James H.,

Nashville and Chattanooga R. R., Nashville, Tenn.

Holcomb, F. P.

Southwestern Railroad, Macon, Ga.

Higgins, B.

Mansfield and Sandusky Railroad, Sandusky City, O.

Johnson, Edwin F.

New York and Boston Railroad, Middletown Ct.

Jones C. F.,

South Oyster Bay, L. I.

Latrobe, B. H.,

Baltimore and Ohio Railroad, Baltimore, Md.

Morton, A. C.,

Atlantic and St. Lawrence Railroad, Portland, Me.

McRae, John,

South Carolina Railroad, Charleston, S. C.

Nott, Samuel,

Lawrence and Manchester Railroad, Boston,

Reynolds, L. O.,

Central Railroad, Savannah, Ga.

Roberts, Solomon W.,

Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

Robinson, James P.,

Androscoggin & Kennebec Railroad, Waterville, Me.

Schlatter, Charles L.,

Northern Railroad (Ogdensburg), Malone, N. Y.

Stark, George.,

Bost., Con. and Mont. R. R., Meredith Bridge, N. H.

Trimble, Isaac R.,

Philad., Wil. & Baltimore Railroad, Wilmington, Del.

Tinkham, A. W.,

United States Fort, Bucksport, Me.

Thomson, J. Edgar.,

Pennsylvania (Central) Railroad, Philadelphia.

Whipple, S.,

Civil Engineer and Bridge Builder, Utica, N. Y.

Williams, E. P.,

Auburn and Schenectady Railroad, Auburn, N. Y.

Williams, Charles H.,

Milwaukee, Wisconsin.

BUSINESS CARDS.

James Laurie, Civil Engineer,

No. 23 RAILROAD EXCHANGE, BOSTON, MASS.

Railroad Routes explored and surveyed. Estimates, Plans and Specifications furnished for Dams, Bridges, Wharves, and all Engineering Structures.

October 14, 1848.

6m*

James Herron, Civil Engineer,

OF THE UNITED STATES NAVY YARD,

PENSACOLA, FLORIDA.,

PATENTEE OF THE

HERRON RAILWAY TRACK.

Models of this Track, on the most improved plans, may be seen at the Engineer's office of the New York and Erie Railroad.

IRON.

Pig and Bloom Iron.

THE Subscribers are Agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniata Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,

Vine Street Wharf, Philadelphia.

Railroad Iron.

THE NEW JERSEY IRON CO'S WORKS AT Boonton, are now in full operation, and can execute orders for Railroad Bars of any required pattern, equal in quality to any made in this country. Apply to
DUDLEY B. FULLER, Agent,
 139 Greenwich street.
 New York, October 25, 1848.

Railroad Iron.

THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron.
THOMAS B. SANDS & CO.,
 22 South William street,
 February 3, 1849. New York.

English Railroad Iron.

3000 Tons H pattern Rails in store, and to arrive this Spring—58 and 60 lbs per yard; of an approved pattern, best English make, each bar being stamped with the manufacturer's name, and inspected before shipment at the works in Wales. For sale by
DAVIS, BROOKS & CO.,
 68 Broad street.
 March 18, 1849. 2m.11

Railroad Iron.

THE MOUNT SAVAGE IRON WORKS, Allegheny county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention.
J. F. WINSLOW, President
 Troy, N. Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md.

November 6, 1848.

Railroad Iron.

THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phoenix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehanna river; which two establishments are now turning out upwards of 1800 tons of finished rails per month. Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

REEVES, BUCK & CO.,
 45 North Water St., Philadelphia.
 March 15, 1849.

Railroad Iron.

THE TRENTON IRON COMPANY ARE NOW turning out one thousand tons of rails per month, at their works at Trenton, N. J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover Iron. The position of the works on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to
COOPER & HEWITT, Agents.
 17 Burling Slip, New York.

October 30, 1848.

Railroad Iron.

THE Undersigned offer for sale 3000 Tons Railroad Iron at a fixed price, to be made of any required ordinary section, and of approved stamp. They are generally prepared to contract for the delivery of Railroad Iron, Pig, Bar and Sheet Iron—or to take orders for the same—all of favorite brands, and on the usual terms.
ILLIUS & MAKIN.
 41 Broad street.
 March 29, 1849. 3m.13

Railroad Iron, Pig Iron, &c.

600 Tons of T Rail 60 lbs. per yard.
 25 Tons of 2½ by 4 Flat Bars.
 25 Tons of 2½ by 9-16 Flat Bars.
 100 Tons No. 1 Girthshoe.
 100 Tons Welsh Forge Pigs.

For Sale by **A. & G. RALSTON & CO.**
 No. 4 So. Front St., Philadelphia.

Railroad Iron.

RAILROAD IRON & LOCOMOTIVE TYRES imported to order, and constantly on hand, by
A. & G. RALSTON,
 4 South Front St., Philadelphia.

RAILROAD WHEELS.

CHILLED RAILROAD WHEELS.—THE Undersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
 Willow St., below 13th,
 Philadelphia, Pa.

CHILLED RAILROAD WHEELS.—THE Undersigned, the Original Inventor of the Plate Wheel with solid hub, is prepared to execute all orders for the same, promptly and faithfully, and solicits a share of the patronage for those kind of wheels which are now so much preferred, and which he originally produced after a large expenditure of time and money.

A. TIERS,
 Point Pleasant Foundry.

He also offers to furnish Rolling Mill Castings, and other Mill Gearing, with promptness, having, he believes, the largest stock of such patterns to be found in the country.

Kensington, Philadelphia Co., }
 March 12, 1848. }

Wanted Immediately.

8000 Tons of Inverted T Rail wanted, of about 60 lbs. to the yard, for laying 80 miles of road, by the Columbus and Lake Erie Railroad Company, and Mansfield and Sandusky Railroad Company, 60 miles of which is new road, and to re-lay 20 miles on the last mentioned road.

Proposals will be received until May 15, addressed (under seal) to me, at this place.

Proposals are invited for cash on delivery, and also for 7 per cent. bonds, payable in New York or Boston. Delivery may be made at Oswego, Albany, or New York, or at Portsmouth, on the Ohio river, Montreal, Canada, or at Sandusky city. American Iron would be preferred, except good English. Parties proposing, will please name the place preferred for delivery. Delivery to commence as early as June 1st, and complete as early as October 1st, if practicable.

B. HIGGINS, Superintendent, etc.
 Sandusky City, Ohio, March 15, 1849. 2m.13

T. & C. Wason,

MANUFACTURERS OF EVERY STYLE OF Freight and Baggage Cars—Forty rods east of the depot Springfield, Mass.

Running parts in sets complete. Wheels, axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N. B. Particular attention paid to the manufacture of the most improved Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Massachusetts, Railroads, where our cars are now in constant use.

SPRING STEEL FOR LOCOMOTIVES, TENDERS AND CARS.—The subscriber is engaged in manufacturing spring steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address **J. F. WINSLOW, Agent,** Albany Iron and Nail Works.

SCHENECTADY LOCOMOTIVE WORKS
SCHENECTADY, N. Y.

THESE Works are in full operation in Manufacturing to order, Locomotive Steam Engines & Tenders, of the best principle and construction of material, using wrought iron heavy frames with pedestals welded thereto, and all parts of the engine made of the best wrought iron, except cylinders, pumps and boxes—obtaining greater durability, and carrying less weight over the road, than engines constructed of cast iron.

Wrought Iron Tires made any required size, and Tire Bars bent and welded with dispatch. Chilled Wheels for Cars, Trucks and Tenders, made from the toughest iron.

Driving and Tender and Car Wheels fitted to Axles with Brass Boxes and Springs, and Railroad Machinery generally. Manufactured and for sale by
E. S. NORRIS.

April 11, 1849.

Extension of the Baltimore & Ohio Railroad.

TO CONTRACTORS FOR GRADUATION AND MASONRY.

PROPOSALS are invited for the Graduation and Masonry of the following described sections of this road—the sections averaging a mile in length—commencing in the town of Cumberland; Sections 1, 2, 6, 7, 8 and 10, will be let, embracing considerable rock work along the Potomac river bluffs, and the masonry of several bridges on Section 11. Also all the sections from 30 to 45 inclusive, (excepting sections 43 and 44) beginning 28 miles from Cumberland, about a mile below the mouth of Savage river, and terminating at the summit of the mountain. The work upon these sections is heavy, containing much rock excavation and 2 tunnels, each about 600 feet in length, and a stone bridge of considerable size. The whole number of sections now to be let is 20. In the course of the spring and summer upwards of 30 more heavy sections will be put under contract between Cumberland and Three Forks Creek. The remaining sections be tween those points, and other work beyond the latter, will be let in the spring of 1850.

Specifications of the work on the 20 sections now to be let, will be ready by the 25th of March current. They will be distributed from the company's offices in Baltimore, Frederick, Harper's Ferry, Cumberland and Washington. The proposals will be directed to the undersigned, at No. 23 Hanover street, Baltimore, and will be received until Saturday, the 28th of April, inclusive. Before making bids the line should be thoroughly examined, and the resident engineers will be in attendance thereon to give information. The most satisfactory testimonials will be demanded. The payments will be made in cash, reserving the usual 20 per cent until the completion of the contract. The most energetic prosecution of the work will be required. By order of the President and Directors.

BENJ. H. LATROBE, Chief Engineer.
 Baltimore, March 14, 1849. 5t.12



INCORPORATED BY ACT OF PARLIAMENT.

NOTICE is hereby given, that an ASSESSMENT OF ONE SHILLING AND THREE PENCE PER SHARE has been levied on the **STOCK OF THE UPPER CANADA MINING COMPANY**—one half thereof, or Seven Pence Halfpenny per share, being payable, at the office of the Company, in Hamilton, or to Messrs. W. & J. CURRIE, Agents, Wall St. New York, on the First Day of April next, and the other half on the First day of July next ensuing. By order,
J. D. BRONDGEEST,
 Secretary U. C. M. C.

Hamilton, 24th February, 1849. 12tf

WILLIAM JESSOP & SONS' CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving from their manufactory,

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—square, flat and octagon. Best warranted Cast Steel—square, flat and octagon. Best double and single Shear Steel—warranted. Machinery Steel—round.

Best and 2d gy. Sheet Steel—for saws and other purposes.

German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps. Genuine "Sykes," L. Blister Steel.

Best English Blister Steel, etc., etc., etc. All of which are offered for sale on the most favorable terms by
WM. JESSOP & SONS,
 91 John street, New York.

Also by their Agents—
Curtis & Hand, 47 Commerce street, Philadelphia.
Alex'r Fullerton & Co., 119 Milk street, Boston.
Stickney & Beatty, South Charles street, Baltimore.
 May 6, 1848.

Direct Action Engines FOR STEAMBOATS.

THE PATENT DOUBLE CYLINDERS,
AND ALSO

THE ANNULAR RING PISTON ENGINES,
of Messrs. Maudslay, Sons & Field, of London, may
be built in the United States, under license, which can
be obtained of their agent,

THOMAS PROSSER, C. E.
28 Platt street, New York.

May 6, 1848.

LAP-WELDED WROUGHT IRON TUBES
for Tubular Boilers, from 1½ to 15 inches diam-
eter, and any length not exceeding 17 feet—manufac-
tured by the Caledonian Tube Company, Glasgow, and
for sale by

IRVING VAN WART,
12 Platt street, New York.

JOB CUTLER, *Patente.*

These Tubes are extensively used by the British
Government, and by the principal Engineers and Steam
Marine and Railway Companies in the Kingdom.

DEAN, PACKARD & MILLS, MANUFACTURERS OF ALL KINDS OF RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS
OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished
at short notice; also, STEEL SPRINGS
of various kinds; and

SHAFTING FOR FACTORIES.

The above may be had at order at our Car Factory,

REUEL DEAN,
ELIJAH PACKARD, } SPRINGFIELD, MASS.
ISAAC MILLS, } 1848

Mattewan Machine Works.

THE Mattewan Company have added to their Ma-
chine Works an extensive LOCOMOTIVE ENGINE
department, and are prepared to execute orders for Lo-
comotive Engines of every size and pattern—also Ten-
ders, Wheels, Axles, and other railroad machinery, to
which they ask the attention of those who wish such
articles, before they purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC.,
Of any required size or pattern, arranged for driving
Cotton, Woollen, or other Mills, can be had on favora-
ble terms, and at short notice.

COTTON AND WOOLLEN MACHINERY,
Of every description, embodying all the modern im-
provements, second in quality to none in this or any
other country, made to order.

MILL GEARING,

Of every description, may be had at short notice, as
this company has probably the most extensive assort-
ment of patterns in this line, in any section of the
country, and are constantly adding to them.

TOOLS.

Turning Lathes, Slabbing, Planing, Cutting and
Drilling Machines, of the most approved patterns, to-
gether with all other tools required in machine shops,
may be had at the Mattewan Company's Shops, Fish-
kill Landing, or at 39 Pine street, New York.

WM. B. LEONARD, Agent.

Devlan's Machinery Oil.

THE Subscribers, Agents for P. S. Devlan & Co's
"Patent Lubricating Oil"—price 80c. per gallon
4 mos. or 3 per cent off for cash.

We refer to the following certificate of Messrs. Nor-
ris Brothers, in whose works, any one by calling can
see the oil in use and judge for themselves.

NORRIS' LOCOMOTIVE WORKS.
Philadelphia, April 2, 1849.

We have been using throughout our Works, during
the last six weeks, "Devlan's Lubricating Oil," and so
far as we have been able to judge from its use, we think
it preferable to the sperm oil generally used, for both
heavy and light bearings.

NORRIS BROTHERS.

For sale by ALLEN & NEEDLES,
22 & 23 South Wharves,
Philadelphia Pa.

14tf

LAP-WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-2 TO 3 INCHES DIAMETER.

These Tubes are of the same quality and manu-
facture as those so extensively used in England,
Scotland, France and Germany, for Locomotive,
Marine and other Steam Engine Boilers.

THOMAS PROSSER,

Patente.

28 Platt street, New York.

THE NEWCASTLE MANUFACTURING Co.
continue to furnish at the Works, situated in the
town of Newcastle, Del., Locomotive and other steam
engines, Jack Screws, Wrought Iron Work and Brass
and Iron Castings, of all kinds connected with Steam-
boats, Railroads, etc.; Mill Gearing of every descrip-
tion; Cast Wheels (chilled) of any pattern and size,
with Axles fitted, also with wrought tires, Springs,
Boxes and bolts for Cars; Driving and other wheels
for Locomotives.

The works being on an extensive scale, all orders
will be executed with promptness and despatch. Com-
munications addressed to Mr. William H. Dobbs, Su-
perintendent, will meet with immediate attention.

ANDREW C. GRAY,

a45 President of the Newcastle Manuf. Co.

**TO RAILROAD COMPANIES AND MANU-
facturers of Railroad Machinery.** The subscri-
bers have for sale American and English Bar Iron, of
all sizes; English Blister, Cast, Shear and Spring
Steel; Juniata Rods; Car Axles, made of double re-
fined iron; Sheet and Boiler Iron, cut to pattern;
Tires for Locomotive Engines, and other railroad car-
riage wheels, made from common and double refined
B. O. Iron; the latter a very superior article. The
Tires are made by Messrs. Baldwin and Whitney, Lo-
comotive Engine Manufacturers of this city. Orders
addressed to them, or to us, will be promptly executed.
When the exact diameter of the wheel is stated in
the order, a fit to those wheels is guaranteed, saving
to the purchaser the expense of turning them out in-
side.

THOMAS & EDMUND GEORGE,

a45 N. E. cor. 12th and Market sts., Philad., Pa.

**NICOLL'S PATENT SAFETY SWITCH FOR
Railroad Turnouts.** This invention for some time
in successful operation on one of the principal rail-
roads in the country, effectually prevents engines and
their trains from running off the track at a switch, left
wrong by accident or design. It acts independently
of the main track rails; being laid down or removed
without cutting or displacing them.

It is never touched by passing trains, except when
in use, preventing their running off the track. It is
simple in its construction and operation, requiring on-
ly two castings and two rails; the latter, even if much
worn or used, not objectionable.

Working models of the Safety Switch may be seen
at Messrs. Davenport, Bridges & Kirk's Cambridge
Port, Mass., and at the office of the Railroad Journal,
New York.

Plans, Specifications, and all information obtained,
on application to the Subscriber, Inventor and Paten-
tee.

G. A. NICOLLS,

Reading, Pa.

**MACHINE WORKS OF ROGERS KETCHUM
& GROSVENOR, Patterson, N. J.** The un-
dersigned receive orders for the following articles man-
ufactured by them of the most superior description in
every particular. Their works being extensive, and
the number of hands employed being large, they are
enabled to execute both large and small orders with
promptness and dispatch.

Railroad Work.—Locomotive Steam Engines and
Tenders; Driving and other Locomotive Wheels, Axles
Springs and Flange Tyres; Car Wheels of Cast Iron
a variety of patterns and chills; Car Wheels of Cast
Iron with wrought tyres. Axles of best American re-
fined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions
and of the most improved patterns, style and work-
manship.

Mill gearing and millwright work generally, hydrau-
lic and other presses; press screws; callenders; lathes
and tools of all kinds; iron and brass castings of all
descriptions.

ROGERS, KETCHUM & GROSVENOR,
Patterson, N. J., or 60 Wall St., New York.

IRON BRIDGES, BRIDGE & ROOF BOLTS,
etc. STARKS & PRUYN, of Albany, New York,
having at great expense established a manufactory with
every facility of Machinery for Manufacturing Iron
Bridges, Bridge and Roof Bolts, together with all kinds
of the larger sizes of Screw Bolts, Iron Railings, Steam
Boilers, and every description of Wrought Iron Work,
are prepared to furnish to order, on the shortest notice,
any of the above branches, of the very best of Amer-
ican Refined Iron, and at the lowest rates.

During the past year, S. & P. have furnished sever-
al Iron Bridges for the Erie Canal, Albany Basin, etc.
—and a large amount of Railroad Bridge Bolts, all of
which have given the most perfect satisfaction.

They are permitted to refer to the following gentle-
men:

Charles Cook,
Nelson J. Beach,
Jacob Hinds,

Willard Smith, Esq.,

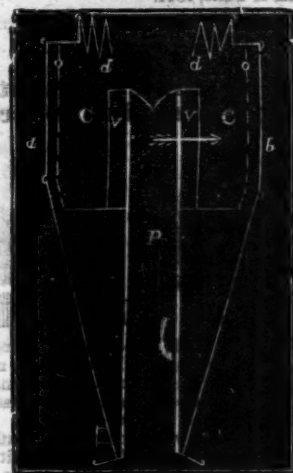
Messrs. Stone & Harris,
Mr. Wm. Howe,

Mr. S. Whipple,

January 1, 1849.

Canal Commissioners
of the
State of New York.
Engineer of the Bridges for
the Albany Basin.
Railroad Bridge Builders,
Springfield, Mass.
Engineer & Bridge Builder,
Utica, N. Y.

FRENCH & BAIRD'S Patent Spark Arrester.



TO THOSE INTERESTED IN RAILROADS.

Railroad Directors and Managers are respect-
fully invited to examine an Improved Spark Arrester re-
cently patented by the undersigned.

Our improved Spark Arresters have been exten-
sively used during the last year on both Passenger and
Freight Engines, and have been brought to such a
state of perfection, that no annoyance from sparks or
dust from the chimney of engines on which they are
used is experienced.

These Arresters are constructed on an entirely dif-
ferent principle from any heretofore offered to the pub-
lic. The form is such that a rotary motion is imparted
to the heated air, smoke and sparks passing through
the chimney, and by the centrifugal force thus acquir-
ed by the sparks and dust, they are separated from the
smoke and steam, and thrown into an outer chamber
of the chimney through openings near its top, from
whence they fall by their own gravity to the bottom of
this chamber; the smoke and steam passing off at the
top of the chimney, through a capacious and unob-
structed passage, thus arresting the sparks without im-
pairing the power of the engine by diminishing the
draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase, or obtain further information in regard to their merits.

R. L. Stevens, president Camden and Amboy railroad company; Rich'd Peters, sup't Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Reading railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philad.; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. Jas. Gadsden, pres't S. Carolina railroad co., Charleston, S. C.; W. C. Walker, agent V. and J. railroad, Vicksburg, Miss.; R. S. Van Rensselaer, sup't Hart. and N. H. railroad; W. R. McKee, sup't Lexington and Ohio railroad; T. L. Smith, sup't N. Jersey railroad and transp. co.; J. Elliott, sup't M. P. Philadel. and Wilm. railroad; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad, Savannah, Ga.; J. D. Gray, sup't Macon, (Ga.) railroad; J. H. Cleveland, sup't of Southern railroad, Monroe, Mich.; M. F. Crittenden, sup't mo. power Central railroad, Detroit, Mich.; G. B. Fisk, pres't Long Island railroad, Brooklyn, L. I.

Orders for these chimneys and arresters, addressed to the subscribers, care of Baldwin and Whitney, of Philadelphia, will be promptly executed.

The subscribers will dispose of single rights, or rights for one or more States on reasonable terms.

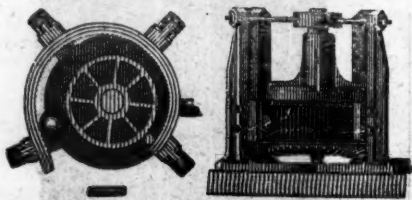
FRENCH & BAIRD.

Philadelphia, Pa., April 6, 1844.

The letters in the figures refer to the article given in the Journal of June, 1844.

MACHINERY.

Henry Burden's Patent Revolving Shingling Machine.



THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phoenixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has given universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shinglers, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll rounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y.

P. A. BURDEN.

Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery for making Spikes, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, Agent,
Troy Iron and Nail Factory, Troy, N. Y.

ENGINE AND CAR WORKS.

DAVENPORT & BRIDGES,

HAVING ASSOCIATED WITH THEM

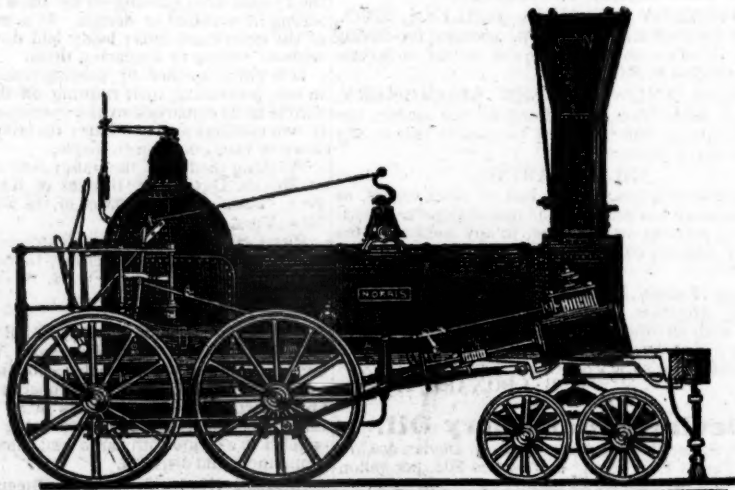
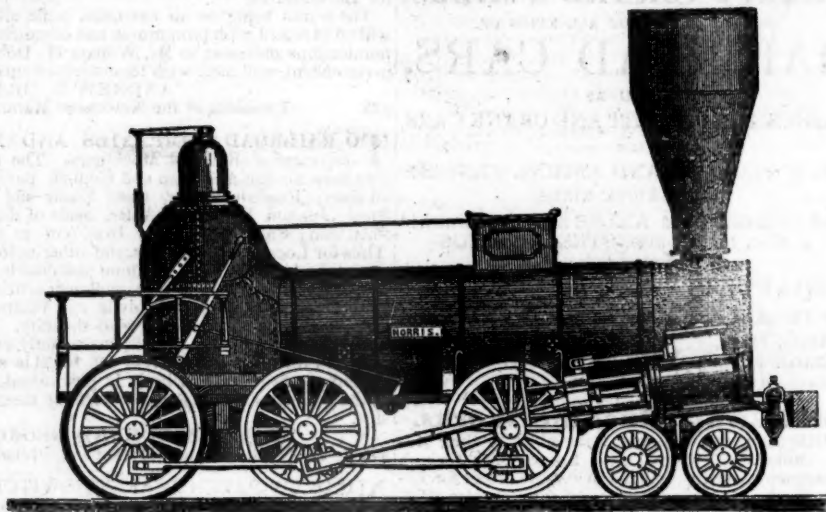
MR. LEWIS KIRK, OF READING, PA.,

And recently enlarged their Establishment, (making it now the most extensive in the United States,) they are prepared to manufacture to order Locomotive Engines and Cars of every description. Stationary Engines, Steam Hammers, Boilers, and all kinds of Railroad Machinery. Also, Castings and Forge Irons of all kinds—including Chilled Wheels, Frogs, Chairs, Switches, Car Axles, and Locomotive Cranks, Connecting Rods, Steel Springs, Bolts, etc., etc. Orders from all parts of the country solicited for Engines and Cars, or any part or parts of the same. All orders will be furnished at short notice, and on as good terms as any manufactory in the country. Coaches pass our works every fifteen minutes during the day, from Brattle St., Boston.

DAVENPORT, BRIDGES & KIRK.

Cambridgeport, Mass., February 16th, 1849.

NORRIS' LOCOMOTIVE WORKS. BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,



THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

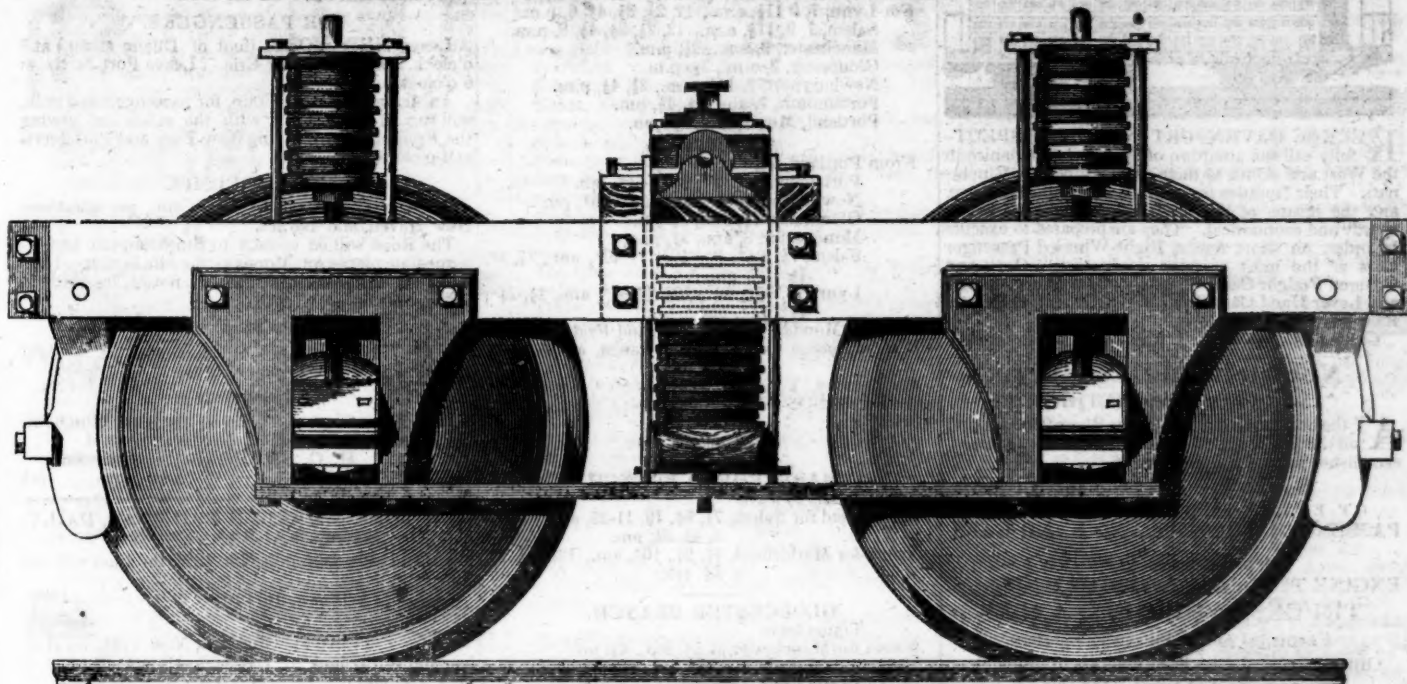
Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tyres are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

FOWLER M. RAY'S METALLIC INDIA RUBBER CAR SPRINGS.



THE NEW ENGLAND CAR COMPANY have introduced these Springs, and they are now in operation on every Railroad terminating in Boston, and several others in New England and the Middle States. Their qualities are well understood, or may be readily ascertained by every person interested to know them. They require no recommendation from the Company. The only known compound of India Rubber good for anything for this purpose is the Vulcanized India Rubber, invented by Charles Goodyear, of New Haven, and the application of it, and the form in which it is used, were invented by F. M. Ray, of New York. The right to manufacture and sell the substance itself for the purpose of Railroad Carriage Springs, as well as the form and application of it, are held exclusively by the New England Car Company. No other Company, or individual, has any right to sell or use it for such purpose, or has attempted so to use it in this country.

The New England Car Company guarantee the right to use the article they sell for Railroad Carriage Springs only, against all adverse rights, whether under patents or otherwise; and all persons and corporations are cautioned against a similar use of the article, when purchased of any other parties.

The Springs they sell are all manufactured in a uniform manner, and under the immediate inspection of their own Agent, and have been proved and known to answer the purpose. None have been manufactured in this country or imported from abroad besides their own, which would at all answer the purpose; and if any such should be produced, it cannot be used for Car Springs, while Goodyear's patents, and the right of the New England Car Company under them, remain in force.

The New England Car Company are now prepared to answer orders for all that may be called for, on reasonable notice, and uniform and equitable terms.—They invite the most careful examination, and the severest scrutiny, into the merits of their Springs, wherever they have applied them. And if after such examination, your Company should judge it for their interest to adopt them, the N. E. Car Company would respectfully invite the patronage which they think they deserve, and are confident of receiving at your hands.

EDWARD CRANE, Agent,
Office 99 State-street,
Orders may also be left with **WM. RIDER & BROTHERS**, No. 58 Liberty-street, New York, or with **F. M. RAY, Agent,**
100 Broadway, N. Y.

The following article from the pen of Mr. HALE, the President of the Boston and Worcester Railroad, expresses his opinion of this important improvement, as published in the Boston Daily Advertiser of June 7, 1848. He says:

"Of the numerous uses to which the wonderful elasticity and durability of India Rubber renders this material applicable, we are hardly aware of one in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used, not only for the springs on which the car rests, but for the springs attached to the draw bar at each end of the car, to prevent any jar on the sudden advancement or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn, that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think than any other spring which we have ever seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is simple in its form and application, extremely light, and little liable to get out of repair.—During the period of some months, in which we have seen the springs in operation, there is no apparent wear or diminution of their efficacy."

The above statement of Mr. Hale agrees with my own observation in all particulars.
WM. PARKER, Supt., B. & W. R. R.
June 8, 1848.

I fully concur in the foregoing statement, from practical observation of its use for the last five months, on the Boston and Worcester railroad corporation cars.
D. N. PICKERING, Jr.,
Supt. Car Building B. & W. R. R.
Boston, June 10, 1848.

The New England Car Company have introduced their Vulcanized India Rubber Car Springs on the roads with which we are respectively connected, and we fully concur with Mr. Hale in the above opinion of their character and properties.
DAVENPORT & BRIDGES, Car Builders.
BRADLEY & RICE, Car Builders.
Boston, June, 1848.

LAWRENCE'S ROSENDALE HYDRAULIC Cement. This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms, and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.
For sale in lots to suit purchasers, in tight papered barrels, by
JOHN W. LAWRENCE,
142 Front-street, New York.

Orders for the above will be received and promptly attended to at this office.

ENGINEERS' AND SURVEYERS' INSTRUMENTS MADE BY EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.



No 23 Pear street, below Walnut, y10 near Third, Philadelphia.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to 48 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Street, PHILADELPHIA.

PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

JOHN F. WINSLOW, Agent.
Albany Iron and Nail Works, Troy, N. Y.

The above Spikes may be had at factory prices, of Erastus Corning & Co., Albany; Merritt & Co., New York; E. Pratt & Brother, Baltimore, Md.

CAR MANUFACTORY, CINCINNATI, OHIO.



KECK & DAVENPORT WOULD RESPECTFULLY call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description. Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, Oct. 2, 1848.

Norwich Car Factory, NORWICH, CONNECTICUT.

At the head of navigation on the River Thames, and on the line of the *Norwich & Worcester Railroad*, established for the manufactory of

RAILROAD CARS,
OF EVERY DESCRIPTION, VIZ:
PASSENGER, FREIGHT AND HAND CARS,
ALSO, VARIOUS KINDS OF
ENGINE TENDERS AND SNOW PLOUGHS.
TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.
Orders executed with promptness and despatch.

Any communication addressed to
JAMES D. MOWRY,
General Agent,
Norwich, Conn.,

Will meet with immediate attention.

RAILROADS.

BOSTON AND PROVIDENCE RAILROAD.

On and after MONDAY, APRIL 2d, the

Trains will run as follows:—

Steamboat Train—Leave Boston at 5 pm. Leaves Providence on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 am., and 4 pm. Leave Providence at 8½ am., and 4 pm.

Dedham Trains—Leave Boston at 8½ am, 12 m., 3½, 6½, and 10½ pm. Leave Dedham at 7, 9½, am., 2½, 5, and 8 pm.

Stoughton Trains—Leave Boston at 1 am., and 5½ pm. Leave Stoughton at ½ am., and 3½ pm.

Freight Trains—Leave Boston at 11 am., and 6 pm. Leave Providence at 4 am., and 7, 40 am.

On and after Wednesday, Nov. 1, the **DEDHAM TRAIN** will run as follows: Leave Boston at 9 am., 12 m., 3, 5½, and 10½ pm. Leave Dedham at 8, 10½, am., 1½, 4½, and 9 pm.

WM. RAYMOND LEE, Sup't.

NORWICH AND WORCESTER RAILROAD.

Summer Arrangement.—1849.

Accommodation Trains daily (Sundays excepted.)

Leave Norwich at 6 am., 12 m., and 2 55 pm.

Leave Worcester at 7½ and 10½ am., and 4½ pm., connecting with the trains of the Boston and Worcester, Providence and Worcester, Worcester and Nashua and Western railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston daily, Sundays excepted, at 5 pm.—At New York from pier No. 1, North River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ am., from Norwich at 7 am.

Fares are Less when paid for Tickets than when paid in the Cars.

S. H. P. LEE, Jr., Sup't.

EASTERN RAILROAD, WINTER ARRANGEMENT.

On and after MONDAY, Oct. 2, 1848.

Trains will leave Eastern Railroad Depot, Eastern Avenue, Commercial-street, Boston, daily, (Sundays excepted.)

For Lynn, 7, 9 1½, am., 12, 2½, 3½, 4½, 6, p.m.

Salem, 7, 9 1½, am., 12, 2½, 3½, 4½, 6, p.m.

Manchester, 9, am., 3½, p.m.

Gloucester, 9, am., 3½, p.m.

Newburyport, 7, 1½, am., 2½, 4½, p.m.

Portsmouth, 7, am., 2½, 4½, pm.

Portland, Me., 7, am., 2½, pm.

And for Boston,

From Portland, 7½, am., 3, pm.

Portsmouth, 7, 9½, am., 5½, pm.

Newburyport, 7½, 10½, am., 2, 6, pm.

Gloucester, 7½, am., 3½, pm.

Manchester, 8, am., 3½, pm.

Salem, 7½, 8½, 9, 10½, 11-40, am., 2½, 3, 4½, 7, pm.

Lynn, 7½, 8½, 9½, 10½, 11-55, am., 2½, 3½, 4½, 7½, pm.

On Monday, Wednesday, and Friday, a train will leave Boston for Lynn and Salem, at 7 o'clock, p.m.

On Tuesday, Thursday, and Saturday, a train will leave EAST BOSTON for Lynn and Salem, at 10½ o'clock, pm.

* Or on their arrival from the East.

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NEW YORK AND ERIE RAILROAD. WINTER ARRANGEMENT.

On Monday, January 1st, and until further notice, the trains

will run as follows:

FOR PASSENGERS.

Leave NEW YORK, (foot of Duane street,) at 7 o'clock, am., by steamer Erie. Leave Port Jervis at 6 o'clock am.

An Accommodation Train, for passengers and milk, will run in connection with the steamboat towing the Freight Barge, leaving New York and Port Jervis at 4 o'clock pm.

FOR FREIGHT.

Leave New York at 4 o'clock, pm., per steamboat New Haven, and Barges.

The Road will be opened to Binghamton and intermediate places on Monday, the 8th January, 1849, on which day, and until further notice, the through trains will run as follows:

FOR PASSENGERS.

Leave New York from Duane street Pier, at eight o'clock, and Binghamton at 7 o'clock, am., daily.

FOR FREIGHT.

Leave New York at 4 o'clock, pm., and Binghamton at 7 o'clock, am., daily, Sundays excepted.

H. C. SEYMOUR, Superintendent.

January 1st, 1849.

NEW YORK & HARLEM RAILROAD, DAILY. WINTER ARRANGEMENT.

On and after December 1st, 1848, the Cars will run

as follows, until further notice:—

Trains will leave the City Hall, New York, for Harlem and Morrisiana at 7, 9, 9.30, 11, am. 12 m., 2, 4, 4.15, 5.30, pm.

Trains will leave the City Hall, New York, for Fordham and Williams Bridge, at 7.30 and 9.30 am., 12 m., 2, 4, 4.15, 5.30 pm.

Trains will leave the City Hall, New York, for Hunt's Bridge, Underhill's and Hart's Corners, at 9.30 am., 4.15 pm.

Trains will leave the City Hall, New York, for Tuckahoe and White Plains, at 7.30 and 9.30 am., 3 and 4.15 pm.

Trains will leave Davis' Brook, Pleasantville, Chappaqua, Mount Kisko, Bedford, Mechanicsville, Purdy's and Croton Falls, at 7.30 and 9.30 am., 3 pm.

NOTICE—Passengers are reminded of the great danger of standing upon the platform of the cars, and hereby notified that the practice is contrary to the rules of the Company, and that they do not admit any responsibility for injury sustained by any passenger upon the platforms, in case of accident.

Returning to New York will leave

Morrisiana and Harlem at 7.20, 8, 8.50, 10 am., 12m., 1.35, 3, 3.45, 5, 5.35 pm.

Fordham and William's Bridge at 7, 8.30, 9.50 am., 1.15, 3.25, 5.20 pm.

Hunt's Bridge at 8.20 am., 3.18 pm.

Underhill's Road at 8.10 am., 3.08 pm.

Tuckahoe at 8.05, 9.30 am., 3.05, 5 pm.

Hart's Corners at 7.55 am., 2.52 pm.

White Plains at 7.45, 9.10 am., 2.45, 4.40 pm.

Davis' Brook at 9 am., 2.35, 4.30 pm.

Pleasantville at 8.49 am., 2.20, 4.19 pm.

Mount Kisko at 8.30 am., 2, 4 pm.

Bedford at 8.25 am., 1.55, 3.55 pm.

Mechanicsville at 8.15 am., 1.45, 3.45 pm.

Purdy's at 8.05 am., 1.35, 3.35 pm.

Croton Falls, at 8 am., 1.30, 3.30 pm.

The trains for Harlem and Morrisiana leaving City Hall at 7, 9, 9.30, 11, 12, 2, 4, and 5.30, and from Morrisiana and Harlem at 7.20, 8, 10, 12, 1.35, 3, 3.45, and 5 o'clock, will land and receive passengers at 27th st., 42d, 51st, 61st, 79th, 86th, 109th, 115th, 125th, and 132d streets.

The 7.30 am., and 3 pm. Trains from New York to Croton Falls, and the 8 am. Train from Croton Falls will not stop between White Plains and New York, except at Tuckahoe, Williams Bridge and Fordham.

A car will precede each train ten minutes to take up passengers in the city. The last car will not stop, except at Broome st. and 32d street.

Freight Trains leave New York at 6 am. and 1 pm.; leave Croton Falls at 7 am. and 2.30 pm., Sundays excepted.

NOTICE—On Sundays the 7 am. to Harlem and Morrisiana, returning at 8 o'clock, and the 7.30 am. to Croton Falls, returning 1.30 pm., will be omitted, and the 7 am. from Williams Bridge will leave at 7.40, and Morrisiana and Harlem at 8 o'clock am.

CHAS. MINOT, Super't.

Boston, March 27, 1849.

ESSEX RAILROAD—SALEM to LAWRENCE.

through Danvers, New Mills, North Danvers, Middleton, and North Andover.

On and after Monday, Oct. 2, 1848,

trains leave daily (Sundays excepted), Eastern Railroad Depot, Washington-st.

Salem for South Danvers at 7.45, 9 am., 12.45, 3.15, 6.45, pm.

Salem for North Danvers at 7.45, 9 am., 12.45, 3.15, pm.

Salem for Lawrence, 9 am., 3.15, pm.

Danvers " 9.10 am., 3.15, pm.

North Danvers " 9.20 am., 3.35, pm.

Middleton " 9.30 am., 3.45, pm.

North Andover " 10 am., 4.20, pm.

South Danvers for Salem at 7.45, 8.45, 11.30, am., 2, 4.55, pm.

North Danvers " 8.20, 11.10, am., 1.40, 5.40, pm.

Middleton " 11 am., 4.30, pm.

North Andover " 10.35 am., 5.05, pm.

Lawrence " 10.30 am., 5, pm.

* These trains will not stop at Frye's Mills nor Grove-st.

JOHN KINSMAN, Superintendent.

Salem, Oct. 2, 1848.

BOSTON AND MAINE RAILROAD.

Spring Arrangement, 1849.

Outward Trains from Boston

For Portland at 6½ am. and 2½ pm.

For Rochester at 6½ am. and 2½ pm.

For Great Falls at 6½ am. and 2½ pm.

For Haverhill at 6½ and 12 m., 2½, 4½, 6 pm.

For Lawrence at 6½, 9 am., 12 m., 2½, 4½, 6, 7½ pm.

For Reading 6½, 9 am., 12 m., 2½, 4½, 6, 7½, 9½ pm.

Inward trains for Boston

From Portland at 7½ am., 3 pm.

From Rochester at 9 am., 4½ pm.

From Great Falls at 6½, 9½ am., 4½ pm.

From Haverhill at 7, 8½, 11 am., 3, 6½ pm.

From Lawrence at 6, 7½, 8½, 11½, am., 1½, 3½, 7 pm.

From Reading at 6½, 7½, 9 am., 12 m., 2, 3½, 6, 7½ pm.

MEDFORD BRANCH TRAINS.

Leave Boston at 7, 9½ am., 12½, 2½, 5½, 6½, 9½ pm.

Leave Medford at 6½, 8, 10½ am., 2, 4, 5½, 6½, pm.

* On Thursdays, 2 hours; on Saturdays, 1 hour later.

CHAS. MINOT, Super't.

Boston, March 27, 1849.

ST. LAWRENCE & ATLANTIC RAILROAD COMPANY.

Notice is hereby given that the Trains run twice per day between Montreal and St. Hyacinthe, leaving each terminus alternately, until further notice.

The first train starts from St. Hyacinthe at 7 o'clock a.m., reaching Montreal at 9 $\frac{1}{2}$ a.m., leaving Montreal at 2 p.m., and reaching St. Hyacinthe at 3 $\frac{1}{2}$ p.m.

The second train leaves Montreal at 9 o'clock, a.m., reaching St. Hyacinthe at 10 $\frac{1}{2}$ a.m., leaving St. Hyacinthe at 4 p.m., reaches Montreal at 5 $\frac{1}{2}$ p.m.

THOMAS STEERS, Secretary.

March 31, 1849.

BALTIMORE AND SUSQUEHANNA RAILROAD.

Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger Trains

run daily, except Sundays, as follows:

Leaves Baltimore at 9 am. and 3 $\frac{1}{2}$ pm.
Arrives at 9 am. and 6 $\frac{1}{2}$ pm.
Leaves York at 5 am. and 3 pm.
Arrives at 12 $\frac{1}{2}$ pm. & 8 pm.
Leaves York for Columbia at 1 $\frac{1}{2}$ pm. & 8 am.
Leaves Columbia for York at 8 am. & 2 pm.

Fare:

Fare to York - \$1 50
" Wrightsville - 2 00
" Columbia - 2 12 $\frac{1}{2}$

Way points in proportion.

PITTSBURG, GETTYSBURG, AND HARRISBURG.

Through tickets to Pittsburgh via stage to Harrisburg - \$9

Or via Lancaster by railroad - 10

Through tickets to Harrisburg or Gettysburg - 3

In connection with the afternoon train at 3 $\frac{1}{2}$ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at 5 $\frac{1}{2}$ pm.
Returning, leaves Owing's Mills at 7 am.

D. C. H. BORDLEY, Supt.

31 ly Ticket Office, 63 North st.

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD, FROM ATLANTA TO DALTON, 100 MILES.

This Road, in connection with the South Carolina Railroad, and Western and Atlantic Railroad, now forms a continuous line, 403 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga. 32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.

		Between Augusta and Dalton, 271 miles.	Between Charleston and Dalton, 403 miles.
1st class	Boxes of Hats, Bonnets, and Furniture, per cubic foot	\$0 18	\$0 28
2d class	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs, and Confectionary, per 100 lbs.	1 00	1 50
3d class	Sugar, Coffee, Liquor, Bagging, Rope, Cotton, Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow ware, Castings, Crockery, etc.	0 60	0 85
4th class	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 40	0 65
	Cotton, per 100 lbs.	0 45	0 70
	Molasses per hogshead	8 50	13 50
	" " barrel	2 50	4 25
	Salt per bushel	0 18	
	Salt per Liverpool sack	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows -	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Company will be forwarded free of commissions. Freight payables at Dalton.

44*ly F. C. ARMS, Sup't of Transportation.

LITTLE MIAMI RAILROAD. WINTER ARRANGEMENT.

Change of Hours. On and after Thursday, November 9th, 1848, until further notice, Passenger Trains will run as follows:

Leave Depot East Front street at 9 $\frac{1}{2}$ o'clock, am., and 2 $\frac{1}{2}$ o'clock, p.m., for Milford, Foster's Crossings, Deerfield, Morrow, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield.
Returning, leaves Springfield, at 2 $\frac{1}{2}$ o'clock, and 9 $\frac{1}{2}$ o'clock, am.

Passengers for New York, Boston, and intermediate points, should take the 9 $\frac{1}{2}$ o'clock, am., Train from Cincinnati.

Passengers for Columbus, Zanesville, Wheeling and intermediate towns, should take the 9 $\frac{1}{2}$ o'clock, am., Train.

The Ohio Stage Company are running the following lines in connection with the Trains:

A Daily Daylight Line to Columbus from Springfield in connection with the Morning Train from Cincinnati. Also, Daily Lines to Columbus, from Xenia and Springfield, connecting with the 2 $\frac{1}{2}$ o'clock, pm. Train from Cincinnati.

The 2 $\frac{1}{2}$ pm. Train from Cincinnati, and 2 $\frac{1}{2}$ am. Train from Springfield, are intended for the accommodation of Way Passengers only, and will be eight hours on the road.

Fare from Cincinnati to Xenia - \$1 90
Do do Springfield - 2 50
Do do Sandusky City - 6 50
Do do Buffalo - 10 00
Do do Columbus - 4 50

For other information and through tickets, apply at the Ticket Office on Broadway, near Front-st., Cincinnati.

W. H. CLEMENTS, Superintendent.

The Company will not be responsible for Baggage exceeding 50 dollars in value, unless the same is returned to the Conductors or Agent, and freight paid at the rate of a passage for every 500 dollars in value to that amount.

BALTIMORE AND OHIO RAILROAD, MAIN STEM.

The Train carrying the Great Western Mail leaves Baltimore every morning at 7 $\frac{1}{2}$ a.m., and Cumberland at 8 o'clock.

passing Ellicott's Mills, Frederick, Harper's Ferry, Martinsburg and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia, and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 $\frac{1}{2}$ P. M. Fare between these points \$7, and 4 cents per mile for less distances.—Fare through to Wheeling \$11, and time about 36 hours, to Pittsburgh \$10, and time about 32 hours.—Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily, except Sundays, from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M., and 5 P. M., and 12 at night from Baltimore, and at 6 A. M. and 5 $\frac{1}{2}$ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington, and the Relay House. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for immediate distances. \$13 y1

PHILADELPHIA, WILMINGTON, & BALTIMORE RAILROAD.

Summer Arrangement. April 1st, 1849.—Fare \$3.

Leave Philadelphia 8 $\frac{1}{2}$ am., and 10 pm.
Leave Baltimore 9 am., and 8 pm.
Sunday—Leave Philadelphia at 10 pm.
" " Baltimore at 8 pm.

Trains stop at way stations.

Charleston, S. C.

Through tickets Philadelphia to Charleston, \$20.

Pittsburg and Wheeling.

Through ticket, Philadelphia to Pittsburg, \$12.

Wheeling, 13.

Through tickets sold at Philadelphia office only.

Wilmington Accommodation.

Leaves Philadelphia at 12 m., 4 and 7 pm.

Leaves Wilmington at 7 $\frac{1}{2}$ am., 4 $\frac{1}{2}$ and 7 pm.

Newcastle Line.

Leave Philadelphia at 2 $\frac{1}{2}$ pm.—Baltimore at 1 $\frac{1}{2}$ pm.

Fare \$3.—Second class, \$2.

N.B.—Extra baggage charged for.

I. R. TRIMBLE, Gen. Supt.

PHILADELPHIA & READING RAILROAD.

Passenger Train Arrangement for 1849.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock am.

The Train from Philadelphia arrives at Reading at 12 18 m.

The Train from Pottsville arrives at Reading at 10 43 am.

Fares. Miles. No. 1. No. 2

Between Phila. and Pottsville, 92 \$3.50 and \$3.00

" " Reading 58 2.25 and 1.90

" " Pottsville 34 1.40 and 1.20

Five minutes allowed at Reading, and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. Stf.

CENTRAL RAILROAD—FROM SAVANNAH to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers & Freight.

Rate of Passage - \$8 00. Freight—

On weight goods generally, 50 cts. per hundred

On measurement goods 13 cts. per cubic ft.

On brls. wet (except molasses and oil) 1 50 per barrel.

On brls. dry (except lime) 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery 40 cts. per hundred

On hhds. and pipes of liquor, not over 120 gallons - \$5 00 per hhd.

On molasses and oil - \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE,

Gen'l Sup't Transportation.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—

and by stage lines and steamers connects with the Montgomery, and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily - \$26 50

Fare through from Charleston to Huntsville, Decatur and Tuscumbia - 22 00

The South Carolina Railroad Co. engage to receive merchandise consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic Railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

JOHN KING, Jr., Agent.

THE WESTERN AND ATLANTIC RAILROAD.—

This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur, and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,

Chief Engineer

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, Agent.

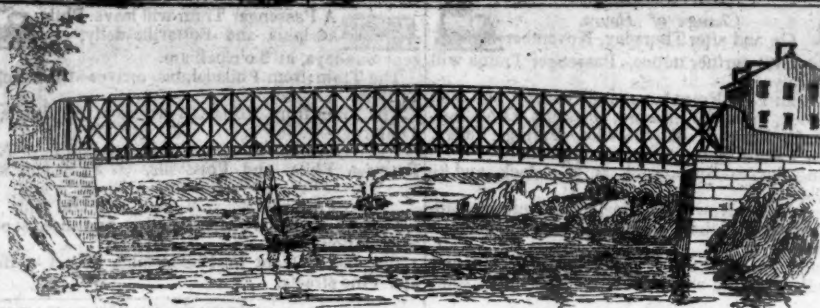
Troy Iron and Nail Factory, Troy, N. Y.

TO LOCOMOTIVE AND MARINE ENGINE

Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine, and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; hollow Pistons for Pumps of Steam Engines etc. Manufactured and for sale by

MORRIS, TASKER & MORRIS,

Warehouse S. E. corner 3d and Walnut streets, Philadelphia.



RIDER'S PATENT IRON BRIDGE.

THE RIDER IRON BRIDGE having been fully tested on the Harlem Railroad, by constant use for about eighteen months, and found to answer the full expectations of its most sanguine friends, is now offered to the public with the utmost confidence as to its great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time is so arranged as to secure the combined principles of the Arch, Suspension and Triangle, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

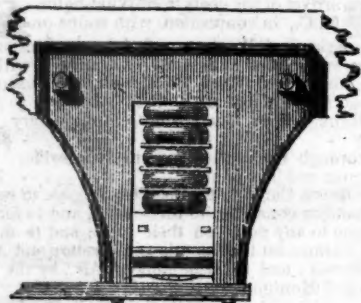
THE IRON RIDER BRIDGE COMPANY are prepared to furnish large quantities of Iron Bridging for Railroad or other purposes, made under the above patent, at short notice, and at prices far more economical than the best wood structure, and on certain conditions, the first cost may be made the same as wood.

Models, and pamphlets giving full descriptions of the RIDER BRIDGE, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 74 BROADWAY, up stairs, or of W. RIDER & BROTHERS, 58 Liberty Street, where terms of contract will be made known, and where orders are solicited.

November 25, 1848.

M. M. WHITE,
Agent for the Company.

Fuller's Patent India-Rubber Springs.



THERE can now be no ground of opposition whatever to these Springs. The Commissioner of Patents has not only rejected the application for a Patent for a similar Spring, but a Patent has just been granted for an entirely new species of India Rubber, the quality of which can be surpassed by no other kind, as the experiments which have lately been publicly made, have fully proved. No extremes of heat or cold can effect it, nor will any amount of pressure permanently alter its shape. This Patent refutes the statement of the "New England Car Company" as to their sole right to use India Rubber.

The Spring (composed by alternate layers of India Rubber Discs and Metal Plates) is superior to any other form of Spring, for several reasons: It is the lightest, the most simple and most durable—there being less friction in this than in other kind; it can be regulated to any extent desired. A less quantity of Rubber is required in this form to make a good spring than in any other because each disc or ring of India Rubber is firmly supported by metal plates, and forms in itself a distinct spring—nor is any spiral spring required. The Patentee is consequently able to supply efficient springs at a less cost than any other parties can do. Purchasers are guaranteed in the use of these springs.

The New England Car Company have no right to make an India Rubber Spring with a Bolt through the centre. All companies using such a spring are liable to an action.

Fuller's spring has been used nearly four years with complete success. It is applicable equally to Passenger and Freight Cars, to Locomotives and Tenders. Bumpers and Draw Springs are always kept on hand, which merely require screwing to a car. It has lately been applied also to several kinds of Machines.

Action will be brought against all persons infringing upon these patents.

The subscriber will show Models and Drawings of the various modes of application to Cars, Machines, Omnibuses, &c.

G. M. KNEVITT, Agent.
Principal office, No. 78 Broad st., New York.

Branch office, Messrs. James Lee & Co.'s, No. 18 India Wharf, Boston.

Mr. Hale, the President of the Boston and Worcester Railroad, wrote an article concerning Fuller's Springs. The "New England Car Company" take the liberty of publishing that article, omitting, however, a very important part; it is therefore given in full now, and the portion omitted by the New England Car Company is printed in italics, that the public may judge the manner in which this "company" pervert Mr. Hale's meaning.

[From the Boston Advertiser of the 7th June].

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it seems to be admirably adapted, and we do not learn that during that period in which it has been used, any defect has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. Each spring is composed of several circular layers of rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr. Knevitt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper."

CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.

RAILROAD SCALES, ETC.

FAIRBANKS' RAILROAD SCALES.—THE subscribers are prepared to construct at short notice, Railroad and Depot Scales, of any desired length and capacity. Their long experience as manufacturers—their improvements in the construction of the various modifications, having reference to strength, durability, retention of adjustment, accuracy of weight and dispatch in weighing—and the long and severe tests to which their scales have been subjected—combine to ensure for these scales the universal confidence of the public.

No other scales are so extensively used upon railroads, either in the United States or Great Britain;—and the managers refer with confidence to the following in the United States.

Eastern Railroad.	Boston & Maine Railroad.
Providence Railroad.	Providence and Wor. Road.
Western Railroad.	Concord Railroad.
Old Colony Railroad.	Fitchburg Railroad.
Schenectady Railroad.	Syracuse and Utica Road.
Balt. and Ohio Railroad.	Baltimore and Susq. Road.
Phila. & Reading Road.	Schuylkill Valley Road.
Central (Ga.) Railroad.	Macon and Western Road.

New York and Erie Railroad.
And other principal Railroads in the Western, Middle and Southern States.

E. & F. FAIRBANKS & CO.

St. Johnsbury, Vt.
Agents, } FAIRBANKS & Co., 81 Water st., N. York.
 } A. B. NORRIS, 196 Market st., Philadelphia.
April 22, 1848. ly*17

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make Platform Scales in the United States;—supposing that an experience of Twenty years has given him a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. ELICOTT has made the largest Railroad Scale in the world, its extreme length was One Hundred and Twenty Feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELICOTT & ABBOTT,

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ly25

MANUFACTURE OF PATENT WIRE ROPE
and Cables for Inclined Planes, Standing Ship Rigger, Mines, Cranes, Tillers, etc, by
JOHN A. ROEBLING, Civil Engineer,
Pittsburgh, Pa.

These Ropes are now in successful operation on the planes of the Portage railroad in Pennsylvania, on the Public Slips, on Ferries, and in Mines. The first rope put upon Plane No. 3, Portage railroad, has now run four seasons, and is still in good condition.

AMERICAN RAILROAD JOURNAL. PUBLISHED BY J. H. SCHULTZ & CO.

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HENRY V. POOR, 54 WALL ST.